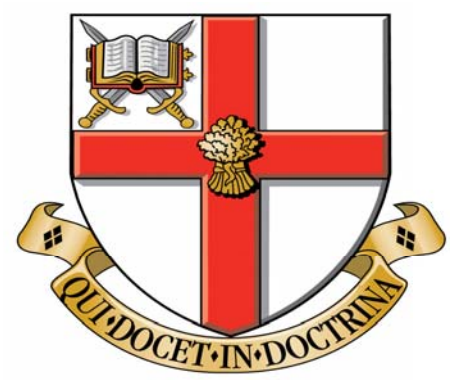

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DISSERTATION

THE RUNAWAY TRAIN:
The Railways and Social Anxiety in Victorian Britain

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ABSTRACT

This essay examines whether the concerns and anxieties expressed over the railways in nineteenth-century Britain are in reality an expression of the wider concerns of the time. The Chester to Holyhead line, including the branch line from Llandudno to Blaenau, was taken as the basis for the essay as it encapsulates many of the points under consideration.

Chapter one explores the physical problems of the railway looking at the apprehension over the speed of the locomotives and lack of control over expansion of the network as it destroyed housing and seized land. Social expansion was a source of concern epitomised by the rise of the new 'middle class'. Wealth was generated rather than inherited allowing the permeation of class boundaries. Technology became more complex and less comprehensible to the people using it. The apparently unstoppable nature of the railway was causing anxiety across society.

Chapter two examines the cultural impact of the railway, including the mobility of much larger proportions of the population and the incursion of mass numbers of people into areas previously considered the territory of the upper classes. The introduction of 'Railway' time across the country was also studied as well as the effect on language, culture and the economy in Wales.

Chapter three looks at literature, with particular reference to Wordsworth, Dickens, Braddon, Gissing and Trollope and how the railways influenced their writing. Examination was made of the expansion of printing and the availability of cheaper literature and the effects this had on the structure of the reading public. Religious symbolism was explored and the use of the train as metaphor for modernity.

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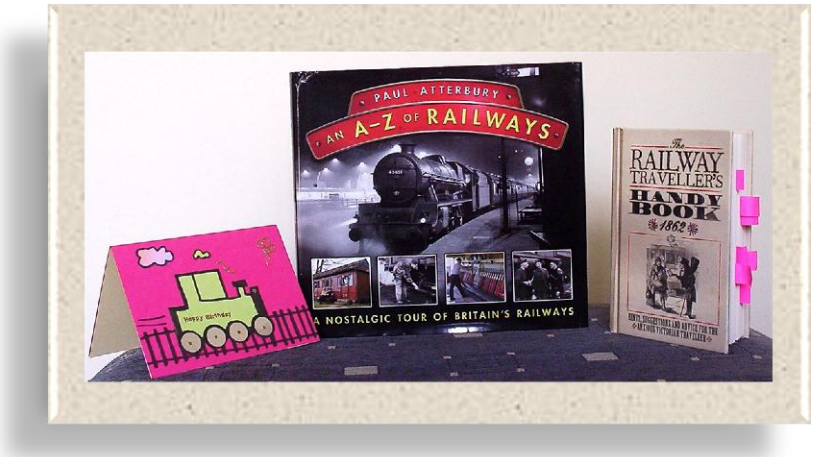

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INTRODUCTION – The Industrial Revolution

In 1830 the first steam driven passenger railway was opened to the public between Liverpool and Manchester. From that moment passenger travel on land was no longer limited by the strength of a horse. The Rainhill trials in Liverpool had been organized to choose the best locomotive to use on the Liverpool to Manchester line and the directors of the railway company originally stated in their 'Stipulations and Conditions' that:

> The Engine, if it weighs Six tons, must be capable of drawing after it, day by day, on a well-constructed Rail-way, on a level plane, a Train of Carriages of the gross weight of Twenty Tons, including the Tender and Water Tank, at the rate of Ten Miles per Hour.[1]

As can be seen by these conditions, the requirements were for reliability, strength and a minimum speed to equal the horse drawn coach. George Stephenson believed his 'Premium' engine (later renamed 'Rocket') could achieve 20 mph and by the 1850s top speeds of 60 mph were being reached.[2] With these accomplishments however came public apprehension. The dissertation will examine the root cause of these concerns around the railway and argue that they were not just concerns about rail travel but in fact the manifestation of more wide-spread worries about the rapidly changing society of the time.

This will be undertaken by exploring what was changing or had changed in the one hundred and fifty years or so of the Industrial Revolution; and will involve examining, amongst other things, religion, science, class and civil unrest. Analysis will be made of essays, newspapers, pamphlets, letters and literature as well as the art and culture of the

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[1] 'Stipulations and conditions of Rainhill Trials, 1829', http://www.diomedia.com/public/;jsessionid=220FBCF071AFD9255B405D5E26D6DCF2.worker2en/5535234/imageDetails.html, paragraph 2 [accessed 4 August 2013].

[2] Aileen Fyfe, *Steam-Powered Knowledge: William Chambers and the Business of Publishing, 1820-1860* (Chicago: University of Chicago Press, 2012), p. 102.

period, to see how people reacted to these changes and how this may have related to the railway. Examination of the whole railway system would not be feasible and this paper will concentrate on the London and North West Railway Company (LNWR) Chester to Holyhead line. It is a comparatively short section of line of about eighty five miles plus the branch line of approximately twenty eight miles from Llandudno Junction to Blaenau Ffestiniog.[3] These sections, however, although short, clearly demonstrate many of the points which will be discussed in this paper. Where appropriate reference will be made to events from elsewhere in the rail network, but this section of the railway will be seen to reveal many of the often over-looked problems of this means of transport, involving construction and operational difficulties and cultural intrusion. To put the line in period context, construction began at Chester on the 1 March 1845 with the Holyhead station opening less than four years later on the 1 August 1848 and the Blaenau Ffestiniog station opened to complete the branch line to Llandudno Junction in 1879.

Whilst the railway has become the symbolic representation of the Industrial Revolution, it is just one development in this significant era. Close examination of the period is not the object of this dissertation, as it has already been the focus of much expert investigation; but a brief look at this momentous time is necessary in order to place railway development in perspective. It is almost impossible to give the start of the Industrial Revolution a definitive date, there was no 'Big Bang' rather the sibilant hiss (possibly of steam) which accompanied this particular period of change. Even to define it by the introduction/invention of various processes such as, for example, steam power or electricity, is problematic. In the first century, for example, Hero of Alexandria developed an aeolipile, known as Hero's engine, operated by pressurized steam. The start of the modern study of electricity, which saw its culmination in the supply of domestic electricity to Godalming in

[3] See Appendix 1, fig. 1.

Surrey in 1881, may be attributed to William Gilbert in the second half of the 1500s. As long ago as 3,000 to 2,000 BC, however, people were aware of the phenomenon of static electricity.[4] It is, however common practice to denote the Industrial Revolution in Britain as the one hundred and fifty years starting at the beginning of the eighteenth century, which places the development of the passenger railway system towards the conclusion of this significant period.

During this time the demography of the country had changed dramatically. The development of the steam engine meant that cotton mills no longer needed to be near a supply of running water for power. Steam was more reliable, not subject to the vagaries of drought, flood and freezing as were streams and rivers. This saw the growth of manufacturing cities such as Manchester and Leeds and their subsequent need for workers. The development of these cities with their promise of more jobs and better wages, fuelled, and was fuelled by, the migration of agricultural workers from the country, a migration which was in turn assisted by, and assisted the growth of the railways. Robert Schwartz examining the effect of the railways on rural development states: 'In the 1880s, […] the regions sustaining the heaviest losses [of population] shifted to include larger parts of Lincolnshire, North Riding Yorkshire, and, above all Shropshire and central and northern Wales in the West.'[5] People were becoming more mobile and no longer tied to their family communities as were their ancestors. There were other types of work available to those willing and able to move, and there were thousands who were prepared to move in search of jobs and better wages. Prior to the Industrial Revolution, agriculture was the main industry of the age, employing not only animals but also men as beasts of burden. The introduction of the canal system and steam powered engines began to change this, establishing new cities as centres of mechanical

[4] John Biscoe, 'Exploring Electricity - History of public supply in the UK,' http://www.engineering-timelines.com/how/electricity/electricity_07.asp [accessed 5 September 2013].
[5] Robert M Schwartz, 'Railways and Rural development in England and Wales, 1850-1914, Map 2 - Percent Population Change due to Net Migration, 1861-1901', https://www.mtholyoke.edu/courses/rschwart /rail/railways_rural_develop.htm#_edn8 [accessed 7 July 2013].

industrial production and revolutionizing the movement of goods and the operation of manufacturing plant. The culmination of this evolution was the development of the industrial mobile steam engine, or 'locomotive', and the eventual establishment of a countrywide passenger rail network.

As with most developments, passenger trains did not come into existence fully formed, but rather developed over a considerable period of time. For example the Diolkos wagon way dates back about two thousand five hundred years. It was a series of grooves carved into the rock to take wagons pulled by slaves and animals, and was used by the Greeks to transport boats across the isthmus of Corinth.[6] The roots of the passenger train system can be seen in this transport of goods, and the modern history of the passenger railway dates back to the use of horse drawn carriages on rails such as the Swansea to Mumbles line of the Oystermouth Railway.[7] The Stockton and Darlington line was used to transport coal from the mines to the sea ports but opened to passengers on the 27 September 1825. It used both horses and locomotives due to the unreliability of steam powered locomotives and also employed the use of static steam engines to draw the carriages up the eastern slope, the initial part of the track.[8] The original passenger carriages were, in fact, modified freight carriages open to the elements with simple bench seating.[9] Alterations were required to raise the sides of these after 'a G.W. train consisting of two third-class passenger carriages, a station truck, and seventeen goods wagons ran into a slip of earth […] All the passengers had been thrown out of the carriages; eight had been killed, and seventeen injured.'[10] It was only in 1844 that the Railway Regulation Act stated that: 'the poorer Class of Travellers' must be carried 'in

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[6] Kieran Egan, *Learning in Depth: A Simple Innovation That Can Transform Schooling* (Chicago: University of Chicago Press, 2011), p. 103.
[7] See Appendix 1, fig. 2.
[8] 'Stockton & Darlington Railway – The Opening', http://www.railcentre.co.uk/stockton/opening4.htm – [accessed 4 August 2013]. See Appendix 1 fig. 3.
[9] See Appendix 1, fig. 4.
[10] Henry Parris, *Government and the Railways in Nineteenth-Century Britain* (London: Routledge and Kegan Paul, 1965), p. 45.

Carriages in which they may be protected from the Weather.'[11] Thus, mobility, other than by foot or by horse, was now within the province of everyone. Eventually George Stephenson developed 'Rocket' to produce his record breaking run in the trials at Rainhill in October 1829, exceeding his own expectations by reaching speeds of 30 mph.[12]

The Industrial Revolution, however, was not the only revolution being seen during this period. A social revolution was also taking place, and this was as important, if not more so, than the physical changes that were being seen. This paper will argue that it is in fact the fears and anxieties caused by the social revolution that underpin the concerns demonstrated by some, in relation to the railways. Investigation of the effects of rail travel on social interaction will reveal the breaking down of class divisions, and the permeability of previously impervious social boundaries. The mobility of both people and goods saw corruption of local culture. Examination will be made as to the effect of the incursion of thousands of tourist into North Wales with the opening of the railway, and on Britain's first artist colony at Betws-y-Coed. Study will be made of the problems caused on the Conway branch line when the rail company came into conflict with its workers over the use of the Welsh language. The challenge to religious belief will be also analysed exploring how the locomotive is portrayed as a satanic element not only, for example, by Punch magazine but also painters and publishers of the period. Perhaps the most basic change, however, was to time itself and the introduction of 'Railway' time was one of the most fundamental changes associated with this period.

It is in the literature of the period, however, that these anxieties are perhaps most profoundly expressed. The works of Mary Elizabeth Braddon, Charles Dickens, George Eliot, George Gissing, Harold Monro, Anthony Trollope and William Wordsworth, amongst

[11] 'The Railway Regulation Act 1844', http://www.railwaysarchive.co.uk/documents/HMG_Act_Reg1844.pdf p. 467 [accessed 4 September 2013].
[12] See Appendix 1, fig. 5.

others, will be used to provide an insight into the worries and concerns of the public. Exploration will be made of the representation of the railways in literature, to understand how this may have influenced, or been influenced by, popular opinion. Examination of the representation in literature of behaviour associated with the railways will look at how social interaction is affected between both gender and class as well as the religious and metaphorical symbolism used in connection with the railway.

Although the expansion of the railway was a significant event in the nineteenth century, this essay will assert that it was more a follower than an innovator of change. Whilst changes manifested themselves in connection with the railway this was frequently a result of outside events rather than the railways themselves and as such the fears came from outside rail transport and were not always caused by the system itself.

CHAPTER 1 – 'Oh, the wild engine'[13]

The Physical Impact of the Railways

The sheer size and nature of the railway engine and its attendant coaches made it impossible for people to ignore. As Monro wrote in his poem 'Journey':

> Oh, the wild engine! Every time I sit
> In any train I must remember it.
> The way it smashes through the air; its great
> Petulant majesty and terrible rate;
> Driving the ground before it, with those round
> Feet pounding, eating, covering the ground.[14]

Not only was this 'wild engine' different from anything that had gone before but there was a sense of it being out of the control of the passengers as they sat helplessly in the carriages. The description of the engine conjures biblical images of the Four Horsemen of the Apocalypse with 'Petulant majesty […]/Feet pounding, eating, covering the ground', suggesting a combination of all four horses and their riders embodied in the mechanical horse of the Industrial Revolution, the locomotive. The use of terms such as 'wild' and the attribution of the word 'feet' to its wheels implied that the engine was a living creature which could, perhaps, be seen as an attempt to naturalize it and make this entirely new way of travel less alarming. The animalistic allusions in Monro's poem, however, were unlike the compliant horses used to draw the post coaches, rather they were the furious and violent images of the biblical horses and their riders, who issue forth when the seals are opened with 'the noise of thunder'.[15] The phrase 'Petulant majesty' suggested the pre-1700s' belief in the divine right of kings, who are only answerable to God. This 'wild engine' was emphatically not answerable to its passengers, it would not wait if they were late, it would not change its destination for their convenience and, as will be seen later in this chapter, it would only slow down at the command of another, older, monarchy. The train was answerable only to the

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[13] Harold Monro, Poems and Prose, 'The Journey', http://poemsandprose.blog.co.uk/2011/07/21/it-drones-and-wimbles-11515715/ [accessed 22 August 2013], l 53.
[14] Monro, Poems and Prose, 'The Journey', [accessed 22 August 2013], ll 53-8.
[15] Revelation 6. 1.

merciless regime of the timetable, epitomized in the unfathomable publication known in short as 'The Bradshaw's'. Only the skilled reader could interpret the information contained in Bradshaw's timetables demonstrating, as will be discussed further, that with the Industrial Revolution came the necessity for previously unknown expertise. On occasions the engine was apparently not even answerable to its driver, with accidents killing and maiming passengers and employees alike. The anonymously written *The Railway Traveller's Handy Book*, was sub-titled *Hints, Suggestions and Advice for the Anxious Victorian Traveller*, and demonstrated that for some travelling by train was not something to be undertaken lightly.

Unlike the coach and horses the railway also did not necessarily follow the tracks and paths already fashioned by man on foot, horseback or by carriage; it forged and created a new map which it imprinted over the countryside. For example the original Roman Road, Watling Street, had been taken by the civil engineer Thomas Telford as the basis of the A5 to Holyhead. After the Act of Union in 1800 Parliament wanted to improve communication between London and Ireland.[16] Telford's A5 road followed the path of history, but with the advent of the railway the path was changed to go around the coast of North Wales, from Chester to Holyhead, thus avoiding the much more mountainous central Wales route of the old coach road.[17] A potential reason for this detour will be discussed in Chapter 2. The increased distance was not a problem, as the speed of the train more than compensated for this, but this speed also formed the basis for disquiet amongst the public.

The railways embodied speed in two ways, firstly the speed of the train itself. This was a cause of concern not only to the general public, but also to Queen Victoria, who insisted on a speed of less than 40 mph whenever she was travelling by train.[18] Until the

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[16] 'Telford highway to Holyhead found intact under the A5', http://www.independent.co.uk/news/uk/this-britain/telford-highway-to-holyhead-found-intact-under-the-a5-710810.html [accessed 22 July 2013].
[17] Charles Hulme, 'The North Wales Coast Railway: History, Crewe to Holyhead', http://www.nwrail.org.uk/nwhist.htm [accessed 29 July 2013].
[18] 'Learning Victorians: Transport and Communication', http://www.bl.uk/learning/histcitizen/victorians/transport/communication.html, [accessed 29 July 2013].

arrival of passenger railway services the life of the land traveller had been governed by travel on foot or the somewhat faster pace of the horse. The advent of the railway meant an increase in physical movement from around 10mph to approaching 80 mph by the mid the 1870s and initially there were fears that the body would not be able to function at such high speeds.[19] A paper published in 'The Lancet' detailed many fears ranging from the risk of abortion to eye problems from reading.[20] Another fear was that there would be insufficient air in tunnels for everyone to breathe. In 1858 Samuel Smiles noted that a Dr Lardner had demonstrated that 'in the proposed Box Tunnel, on the Great Western Railway, the passage of a load of 100 tons would deposit about 3,090 lbs. of noxious gases, incapable of supporting life'.[21] Wolfgang Schivelbusch, examining what he termed 'an ever-present subliminal fear [of the train journey]', quotes from a German publication of 1845 which claimed '[the] anxiety can be explained by the always "close possibility of an accident, and the inability to exercise any influence on the running of the cars".'[22] This also shows that anxiety about loss of control in these circumstances was not a peculiarly British one, and not everybody had the authority of Queen Victoria to insist that the train should slow down. Lives which had been lived at a much slower pace were rapidly being transformed, and this transformation was not in the control of the passengers but rather the specialists.

The introduction in the early 1830s of the word 'scientist' (see *OED* online definition 1) introduced a barrier between those with specialist knowledge and those without that knowledge, and this barrier was not based on class, the normal divider of the population until this time. The locomotive required a specialized knowledge to construct and operate it. Unlike horses, which most people could control to a greater or lesser degree, engines were a

[19] 'Learning Victorians: Transport and Communication', [accessed 29 July 2013].
[20] The London Lancet Commission, 'The Influence of Railway Travelling on Public Health', *The Lancet* (London: 1862), pp 23-53.
[21] Samuel Smiles, Robert Stephenson, *The Life of George Stephenson, Railway Engineer* (London: J. Murray, 1858), p.343.
[22] Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the 19th Century* (Berkeley: University of California Press, 1986), p. 130.

thing of mystery. In his examination of the birth of the railways Michael Freeman equates the Industrial Revolution to Milton's *Pandaemonium*, and contends the locomotive engine 'belching smoke and fumes, but without any visible means of animate propulsion, brought desperate fears and anxieties, as well as awe and admiration. Many thought that there was something almost supernatural about steam locomotion.'[23] This was an era in which science was already questioning fundamental beliefs. Darwin's 'The Origin of Species' and 'The Descent of Man' for example, together with Sir Charles Lyell's assertion that the world was far older than the biblically based promulgation of 6,000 years, meant that Religious beliefs and interpretations were being interrogated. It is, therefore, reasonable to assert that some might see the advent of this new mysterious technology almost as a substitute for this loss of the 'otherworldly' side of religious belief. As with spiritual belief, people were required to have faith in something they did not understand and were themselves unable to control, an outcome aptly portrayed in a punch cartoon of 1845.[24] Power was now in the hands of a new group of people, the 'professionals'. The Industrial Revolution in general, and railway construction in particular, had created what Gourvish terms as

> sudden and sizeable demands for professional expertise […] It is not too much to say that the industry played a key role in encouraging the growth of occupational professionalism based on specialised work. Engineering, law, accountancy and surveying all received an important stimulus. In engineering, construction problems were met by a small élite group of consulting engineers: men such as Robert Stephenson, Joseph Locke, and Isambard Kingdom Brunel. But more routine matters were handled by a rapidly expanding army of civil engineers, whose ranks increased four-fold between 1841 and 1851.[25]

Inherited status was no longer the prerequisite for authority, this now belonged to this new 'élite group'. Men, and it was mainly men, such as scientists, business men, industrialists, and commercial entrepreneurs were forming a new class between the aristocracy and the workers, the middle class.

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[23] Michael Freeman, *Railways and the Victorian Imagination* (New Haven: Yale University Press, 1999), p.13.
[24] See Appendix 2, fig. 1.
[25] Terence R. Gourvish, *Railways and the British Economy 1830-1914* (Basingstoke: Macmillan Education, 1980), 21.

This new class was forcing its way into the social strata, just as the railways were forcing their way across the land. Richard Morriss suggests that: 'The Duke of Wellington […] disapproved [of the railways] because they made the working class more mobile'.[26] Mobility gave power; as the proverb says 'travel broadens the mind', and before the arrival of the railways the possession of private coaches and the financial resources to travel by mail coach gave the rich their mobility. The Industrial Revolution, however, had provided the middle class with the opportunity to make money. The steam powered weaving mills could be bigger thereby introducing economies of scale with hundreds of looms per mill instead of tens. Canals had enabled faster transport of raw materials and manufactured goods so money tied up in resources and goods could be turned round more quickly. This new influential middle class had the money to be able to travel between the great industrial cities of the Midlands and the North, where they made their money, to the seat of control and Government in London, as well as into the country wherein lay the estates of the landed gentry. Wealth was now being created by a new class, not simply inherited by the aristocracy. It can be seen, therefore, that the balance of power was beginning to move from the upper classes down the social layers, an event that incurred apprehension amongst the aristocracy as they saw the end of Edmund Burke's 'people inheriting privileges, franchises and liberties, from a long line of ancestors.'[27] Up to this time the money, and through this the freedom of action, was handed down through the lines of inheritance. Some of those lines went back many hundreds of years, and it was that wealth and freedom which had controlled the ability to create more wealth. With the industrial revolution it was possible to create wealth from scratch rather than inherit it. As Freeman maintains, '[it] was not necessarily true that England was actually on the brink of social collapse, but it *seemed* so to many of the gentry and the

[26] Richard Morriss, *The Archaeology of Railways* (Stroud: Tempus Publishing, 1999), p. 26.
[27] Edmund Burke, *Reflections on the Revolution in France, and on the proceedings in certain societies in London relative to that event, in a letter intended to have been sent to a gentleman in Paris* (London: J. Dodsley, 1791), p. 47.

socially privileged'.[28] Steam locomotion appeared, to many of the socially advantaged such as the Duke of Wellington, to be hastening the process of collapse by allowing increased mobility to the lower classes. Francis Klingender saw this as 'the final battles between two economic systems and two incompatible ways of living.'[29] 'Canals, turnpike trusts, coaching concerns and horse-breeders took fright […] every conservative interest in the country was clamouring lest the new mechanical monster should undermine their monopolies or destroy their privileges.'[30] The Industrial Revolution, electoral reform and education, amongst other transformations, were finally changing British society and, as a prominent innovation of the time, the railways were taking some of the blame for this.

There was considerable concern about the speed of expansion of the rail network across the country, and the lack of overall control governing this rapid growth. Biddle and Nock note that 'Britain was exceptional in Europe for its *laissez-faire* approach to railway building.'[31] Jack Simmons takes this further believing that '[looked] at as a means of forming a railway system, the procedure adopted by the British Government and Legislature in 1844-8 must seem to us now grotesque. They seldom attempted to determine a policy in relation to any part of it.'[32] The reluctance of the Government to interfere with capitalist projects meant that profit was the overwhelming, if not the only, driving force behind railway expansion. The Government allowed a totally new technology to be used in public transport with no control, regulation and little effective examination. This unregulated construction caused nervousness and apprehension from the highest to the lowest social categories of the land. The only requirement for a railway company who wished to build a new line was that: 'they needed the right to impose compulsory purchase orders on the land […] To obtain this,

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[28] Freeman, *Railways and the Victorian Imagination*, p. 9.
[29] Francis D Klingender, *Art and the Industrial Revolution* (St. Albans: Granada Publishing, 1975), p. 123.
[30] Klingender, *Art and the Industrial Revolution*, p. 123.
[31] Gordon Biddle and Oswald S. Nock, *The Railway Heritage of Britain* (London: Michael Joseph, 1983), p. 8.
[32] Jack Simmons, *The Railway in England and Wales 1830-1914: The system and its working* (Leicester: Leicester University Press, 1978), p. 44.

they had to promote a parliamentary Bill'.[33] The competition between railway companies required the lines to be constructed with the utmost speed, and to enable this the land had to be secured without delay. Legal compulsion though was not always needed in the case of the larger land-owners, with financial inducements frequently achieving quicker results. The railway companies had no time for a Dickens Jarndyce v Jarndyce type of protracted law suit, speed was of the essence. The Duke of Wellington, in his address to parliament, however, asserted that: 'small proprietors who could not well come before Parliament to defend their interests were placed in the hardest situation possible in the case of interference with their property on the part of railway companies'.[34] The speed of railway construction ignored the concerns of small landowners who railway companies knew could not afford to use the threat of legal or parliamentary action to obtain a fair price for their land.

All land-owners, both big and small, were under pressure to sell in order that the expansion of the rail network could progress without delay. This pressure was backed by the tacit approval of the Government, as it was parliament who granted the compulsory purchase bills. Examining what he termed 'the most dramatic infringement of private property rights in England since the Civil War' Rande Kostal points out that '[in] the span of only twenty-five years, 1825 to 1850, Parliament equipped scores of steam railway companies with the legal power to compel the sale of tens of thousands of acres of privately held English real property.'[35] Kostal believed this to be the 'most dramatic infringement of private property rights in England since the Civil War. Few estates, including those of the nobility, were entirely safe from what contemporary observers justly referred to in the 1840s as the railway "invasion" of the land.'[36] Kostal views the railway as 'justly referred to' as an invader of the

[33] Christian Wolmar, *Fire & Steam: How the Railways Transformed Britain* (London: Atlantic Books, 2008), p. 26.
[34] Hansard LXXX (8 May 1845), c. 280. As quoted by R.W. Kostal, in *Law and English Railway Capitalism* (Oxford: Clarendon Press, 1994), p.158.
[35] Rande,W. Kostal, *Law and English Railway Capitalism*, (Oxford: Clarendon Press, 1994), p. 144.
[36] Kostal, *Law and English Railway Capitalism*, p. 144.

land. He sees the compulsory purchase of the land as a 'dramatic infringement of private property rights'. This 'infringement', however, does not appear to extend to the tenants of slum housing who were displaced with the progress of the railway into the cities, leaving them with no compensation and nowhere to go. Rather it is confined to 'estates, including those of the nobility'. At this point, however, the Government was not necessarily on the side of the landed gentry, who once formed a major part of the Government and were a large source of finance. They could now see the railway companies financing the expensive project of extending the rail network across the country and were more than happy not just to permit this, but rather encourage it with the granting of compulsory purchase Bills in Parliament. The owners of estates both large and small were realising that the owning of land, which had previously been a means of financial security for a select group, was no longer the prerogative of an exclusive few. The age of entitlement for the aristocracy was coming to an end as the previously impermeable barriers between the classes were being dissolved and money was taking the place of inherited status. Engineers from humble backgrounds such as George Stephenson, Richard Trivithick and Thomas Newcomen were the new 'aristocracy' of the Industrial Revolution, and there was no stopping the juggernaut of railway construction as it steamed its way across the country.

The concern over the acquisition of land by the railway companies could also be seen at the lower end of the social scale with the rush by the railway companies to destroy housing in the path of the proposed lines. Frequently the houses involved were occupied by poor tenants with landlords eager to sell their low quality housing stock to the railway companies at inflated prices. In *Dombey and Son*, first published in serial format between October 1846 and April 1848, Dickens graphically describes this destruction:

> The first shock of a great earthquake had, just at that period, rent the whole neighbourhood to its centre. Traces of its course were visible on every side. Houses were knocked down; streets broken through and stopped; deep pits

> and trenches dug in the ground; enormous heaps of earth and clay thrown up; buildings that were undermined and shaking, propped by great beams of wood. […] Hot springs and fiery eruptions, the usual attendants upon earthquakes lent their contributions of confusion to the scene. Boiling water hissed and heaved within dilapidated walls, whence also, the glare and roar of flames came issuing forth; and mounds of ashes blocked up rights of way, and wholly changed the law and custom of the neighbourhood.[37]

In this description Dickens metaphorically equates the destruction of the suburb of London for the incoming railway line, with the natural destruction of an earthquake. The 'first shock of a great earthquake' comes in its unexpectedness. As tenants the inhabitants of the houses would have been given little or no warning of what was to come. In this manner it is reasonable to contend that Dickens portrays the manmade construction of the railway and the destruction to the 'law and custom of the neighbourhood' that this caused as being as unstoppable as the natural event of an earthquake. George McDonald, however, in his novel *Robert Falconer,* written in 1868, sees things rather differently:

> The utter wickedness of railway companies, who pulled down every house that stood in their way, and did nothing to provide room for those who were thus ejected – most probably from a wretched place, but only to be driven into a more wretched still.[38]

Here there is a religious allusion with the use of the word 'wickedness' in relation to the railway companies' actions. This is not a comparison to a natural event as in *Dombey and Son* but rather to an immoral action on the part of the organizations involved. They are depicted as having no conscience about the social effects of their actions, again they are out of control, but here it is the control offered by religious organizations that they appear to be flouting. The anxiety about the speed of this destruction can be seen making its way into the literature of the time in different ways. McDonald was concerned not so much that the housing was being pulled down, he admitted these are 'wretched' places, but rather that no alternative was being provided. The people being ejected were not in a position to object and

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[37] Charles Dickens, *Dombey and Son* (London: Richard Edward King, no publication date), p. 40.
[38] George MacDonald, *Robert Falconer* (London: Hurst and Blackett, no publication date), p. 410.

not in line for compensation; they were, after all, just tenants not the owners of the properties. At the time there was no provision of housing by local councils, this was not seen until the end of the nineteenth century, and it was not until after World War 1 and the introduction of the Housing act (known as the 'Addison Act' after Dr Christopher Addison) that building of social housing began in earnest.[39] Dickens's description sees it as a more naturalistic event making no actual narrative comment about the rights and wrongs of the destruction of Staggs Gardens, and in fact showing Mr Toodle, who lived there at the start of the novel, in the employment of the railway later on. These authors illustrate the tension between the destruction of sub-standard housing and the eviction of the tenants of such housing in different ways.

Looking at the history of the building of the rail network, Ian Carter sees railway construction as '[by] turns exhilarating and terrifying' and believes that 'in the mid-nineteenth century one had to be confident that railways' onrushing modernity would infuse and transform British cultural understanding.'[40] Similarly Schivelbusch opens his text with the statement that: 'Nothing else in the nineteenth century seemed as vivid and dramatic a sign of modernity as the railroad. Scientists and statesmen joined capitalists in promoting the locomotive as the engine of "progress", a promise of imminent Utopia.'[41] The use of the words 'onrushing' and 'modernity' in these comments encompasses not only the positive view of the railways but also its negative side. High-speed revolution can result in rash or reckless change which goes too far, sweeping all before it in its rush for innovation. As will be discussed later in this chapter the understanding of technology was unable to keep up with the safety requirements of the railway, and construction sometimes employed out of date techniques.

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[39] 'Living Heritage, Improving towns: Council Housing', http://www.parliament.uk/about/living-heritage/transformingsociety/towncountry/towns/overview/councilhousing/ [accessed 3 September 2013].
[40] Ian Carter, *Railways and Culture in Britain: the epitome of modernity* (Manchester: Manchester University Press, 2001), p. 3.
[41] Schivelbusch, *The Railway Journey*, p. xiii.

It was not only land ownership which was being sacrificed in the rush for expansion; there was little concern for the historical heritage and landscape which was demolished or damaged in the scramble to be the first line through an area, or to secure the easiest route for construction. The medieval town of Flint in the path of the North Wales line, for example, was bisected by the track, leaving the historic Flint Castle isolated from its supporting church, and severing the flourishing Greenfield Dock.[42] Even historic Chester was not sacrosanct from what Simmons calls 'a slight flesh wound' caused by the railway as it 'penetrated' the city walls, a concept which will be investigated later.[43] Further down the line Conway was to be better protected than Chester: 'At Conway a railway's architecture [sic] was required, for the first time in Britain, to meet an official anxiety to protect one of the principal antiquities in the island against possible "vandalism"'.[44] Unfortunately this anxiety seems to have been well justified and despite the 'railway's architecture' the aesthetics of the resulting tubular bridge were controversial. William Pole writing in 1864 complained that '[an] attempt was made to give a style corresponding to that of the castle, but alterations subsequently introduced into the construction, and the omission of the ornamental parts to save expense, crippled the design'.[45] The stark basic construction was unrelieved by the ornamentation which would have enabled the bridge to be better integrated into its surroundings. As is sometimes seen today, 'consultation' did not necessarily mean that the recommendations of that consultation would be implemented. The Victorians were concerned in the nineteenth century, as we still are in the twenty first century, that the destruction of historic structures in Britain and impairment of the scenic countryside in the name of 'progress' and 'modernity' was out of control. Demolition was carried out and damage was caused in the name of

[42] Jack Simmons, *The Victorian Railway*, (New York: Thames and Hudson, 1991), p. 159.
[43] Simmons, *The Victorian Railway*, p. 159. See Appendix 2, figs. 2 and 3.
[44] Simmons, *The Victorian Railway*, p. 160.
[45] John Cordy Jeaffreson, William Pole, *The Life of Robert Stephenson, F.R.S. etc. etc: Late President of the Institution of Civil Engineers* (London: Longman, Green, Longman, Roberts & Green,1864), p. 111.

development, without thought for the social requirements of the present or the preservation of the past.

Another area where economy of construction was causing problems was in technology. The speed, size and weight of trains required new technology in, for example, braking which had not yet caught up with invention and Tom Rolt notes that: 'the only way of stopping was to reverse the engine and as there was no reversing gear […] [it] must indeed have called for a lightening quick eye, remarkable dexterity and perfect timing.'[46] George Graham, a driver of George Stephenson's engines *Hope, Black Diamond and Diligence* told Henry Oxtoby, a North Eastern Railway employee, '[stopping] a train was a work of art because there were no brakes on engine or tender and only crude wooden block brakes on the wagons which had to be held down.'[47] Brakes on the wagons were operated manually by turning a wheel which applied wooden block brakes to the wagons, a system not dissimilar to that of the horse drawn coaches they replaced. Many accidents defined as 'collisions' were in fact caused by poor brakes and, although the constraints of this paper do not allow, further investigation of this relabeling could prove of interest. In the Abergele disaster in 1868 on the Chester to Holyhead line, braking failure on goods wagons carrying paraffin oil sent the wagons heading back down the line towards the oncoming Irish Mail train. The subsequent crash and devastating fire killed thirty one people.[48] Nock considers '[the] attitude of British railway management in general was at that time extraordinarily parochial.'[49] The companies, '[not] only [resented] the intrusion of any device invented or developed outside the country [e.g. air brakes from America] but many of them were exceedingly reluctant to use good ideas that had been developed on another railway in this country.'[50] Twenty one years later

[46] L. T. C. Rolt, *George and Robert Stephenson: The Railway Revolution* (London: Longmans, Green and Co., 1960), pp. 135-6
[47] Rolt, *George and Robert Stephenson*, p. 135.
[48] See Appendix 2, fig. 4.
[49] Oswald S. Nock, *Historic Railway Disasters* (London: Ian Allan, 1969), p. 32.
[50] Nock, *Historic Railway Disasters*, p. 32.

in 1889 there had been little improvement as demonstrated by the Irish disaster near Armagh. Additional carriages added to the excursion train made it too heavy for the engine to pull up the hill and the train was split in two to allow the engine to take the first carriages up before coming back for the rest. The inadequate braking system failed to hold the remaining carriages on the hill and they rolled back into the path of a following train, resulting in the death of eighty passengers. Nock, referring to train construction in 1876, asserts that the construction of: 'powerful new locomotives […] without any brakes on the locomotives themselves' and the dependence on 'hand-applied brakes on the tender and the co-operation of guards was, to put it bluntly, quite ludicrous'.[51] Francis Coghlan was rather more forthright when commenting in his companion book for railway travellers and his guide embodies many of the concerns of the rail traveller of the time. His recommendations regarding seating for example include:

> get as far from the engine as possible – for three reasons: - *First*, should an explosion take place, you may happily get off with the loss of an arm or leg – whereas if you happen to be placed near the said piece of hot machinery, and an unfortunate accident really occur, you would very probably be "*smashed to smithereens*," as Brother Jonathan most expressively terms the likely result of such an occurrence.[52]

Boiler explosions were not uncommon in the early days of the railway and Perkin reveals that '[boiler] explosions, often caused by engine-drivers tying down the safety valve to build up a greater head of steam [thereby increasing the speed], were not infrequent.'[53] Competition between rail companies was fierce, with many different companies vying for the same business, and pressure was put on drivers to be faster than their rivals, regardless of the consequences. Commenting in his diary on the 14 November 1829, Thomas Creevey wrote 'Today we have had a lark of very high order. Lady Wilton sent over yesterday from Knowsley to say that the Loco Motive machine was to be upon the railway at such a place at

[51] Nock, *Historic Railway Disasters*, p. 32.
[52] Francis Coghlan, *The Iron Road Book and Railway Companion from London to Birmingham, Manchester and Liverpool* (London: A H. Baily, 1838), p. 18.
[53] Harold Perkin, *The Age of the Railway* (Newton Abbot: David & Charles, 1971), p. 107.

12 o'clock.'[54] After carefully timing the engine's speed at up to 23 mph, Creevey commented 'it is really flying, and it is impossible to divest yourself of the notion of instant death to all upon the least accident happening.'[55] The sensation of so great a speed emphasised the dangerous nature of such a means of travel. Morriss quotes John Ruskin as seeing rail travel as having the '"very doubtful advantage of the power of going fast from place to place […] The railroad … transmutes a man from a traveller into a living parcel."'[56] This image conjured by Ruskin is compounded by passengers being initially carried in converted freight wagons, with no protection from either the elements or injury caused by accidents. As the number of train services increased so the coach services were withdrawn and 'within three months of the opening of the Liverpool and Manchester, over half the twenty-six on the route had ceased running' two years later there was just one, a pattern being repeated across the country.[57] Passengers were being forced on to the railways at a time when speed was the prime motivator, frequently at the expense of safety. The passengers were only too aware of this, as Perkin explains: 'the travelling public were in the hands of largely unseen operators and were at the mercy of the efficiency or inefficiency, diligence or carelessness of anonymous manipulators'.[58] There was eventually no choice for those who wished to travel any distance, but the understandable anxiety was focussed not on the operators and the rail companies where it belonged, with their blinkered pursuit of profit, but rather on the locomotive itself.

It was not only inefficiency or carelessness that was cause for concern, there was also the lack of understanding about the materials being used and the forces being encountered in this new method of transport. This chapter has already discussed the failures of braking, but

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[54] Thomas Creevey, *The Creevey Papers: a selection from the correspondence & diaries of Thomas Creevey, M.P., born 1768 – died 1838*, ed. Sir Herbert Maxwell (London: John Murray, 1904), p. 203. As quoted by Schivelbusch in *The Railway Journey*, p. 15.
[55] Creevey, *The Creevey Papers*, p. 204. As quoted by Schivelbusch in *The Railway Journey*, p. 15.
[56] Morriss, *The Archaeology of Railways*, p. 9.
[57] Wolmar, *Fire and Steam*, p. 53.
[58] Perkin, *The Age of the Railway*, p. 107.

the extensive expansion in the rail network also saw an increase in track problems, particularly bridges. Before the Industrial Revolution what might be termed 'technological accidents' were uncommon, apart from those associated with large stone constructions such as Cathedrals. After around the eleventh century in Britain the extensive use of stone as opposed to wood and an increase in size meant that 'Cathedral construction was at the cutting edge of building technology, and errors of judgement led to the collapse of the central towers at both Winchester and Lincoln.'[59] Similarly the Industrial Revolution introduced progressive technology that was not fully understood or tested by the engineers employing it. Robert Stephenson, George Stephenson's son, was employed as Engineer in Charge of the Chester to Holyhead rail line which was begun in 1844. Shortly after the line first opened in 1847 the bridge over the River Dee suddenly collapsed whilst a passenger train was travelling over it, killing five people and seriously injuring a further nine. Subsequent investigation of the remainder of the bridge by Captain Simmons of the Railways Inspectorate recorded that 'there is the shaking and oscillating motion caused by an engine going at considerable speed […] In addition to this is the tremulous motion of the beam […] when the engine is going over.'[60] This is an indication of the potential for stress fractures in the brittle cast iron material used in construction and indeed Captain Simmons 'felt that both effects acted to weaken the girders.'[61] A Royal Commission set up to investigate cast iron structures reported that '[the] enquiry showed that heavy moving loads, such as trains, set up vibrations which imposed additional strain on cast-iron bridges beyond that allowed for in the formulae hitherto used.'[62] This was exacerbated on the day by the 'ballast [which] was added to prevent passing engines from setting the timber decking from catching fire. He estimated

[59] 'The Cathedrals of Britain', http://www.bbc.co.uk/history/british/architecture_cathedral_01.shtml [accessed 2 August, 2013].
[60] Peter R. Lewis, *Disaster on the Dee: Robert Stephenson's Nemesis of 1847* (Stroud: Tempus Publishing, 2007), pp. 113-4.
[61] Lewis, *Disaster on the Dee*, p. 114.
[62] Parris, *Government and the Railways in Nineteenth-Century Britain*, p. 117.

that between 8 and 10 tons were used'.[63] Manufacturers and engineers believed that the testing carried out on the casts indicated that they had a much greater weight tolerance but unfortunately '[the] tests done in the foundry could also be very misleading because they did not correspond to the way the girders were actually loaded, […] and in this case, is likely to have given wildly over-optimistic values of the strength.'[64] The tests were carried out incorrectly as the foundry did not fully understand what the load directions would be when the casts were in place, and therefore the casts were much weaker than they were believed to be. Such accidents were beginning to impact more and more on the consciousness of the public.

Schivelbusch, quoting a translation of Bloch's *Spuren*, believes that when the 'demonic nature of the first railroads [had metamorphosed] into the quotidian […] "Only the accident still reminds us of it sometimes, with the crash of collision, the roar of explosion, the cries of maimed people"'.[65] Schivelbusch takes this point further when he claims '[the] higher the degree of technical intensification (pressure, tension, velocity, etc.) of a piece of machinery, the more thorough-going was its destruction in the case of dysfunction.'[66] It is not the train itself that is the cause of accidents but rather the 'technical intensification', the increase in the complexity of the technology involved, and this amplification meant that any resulting failure would increase the devastation it caused. Thus the physical nature of the railway with its increased speed, its ability to enable the population to cross the class divisions and its complex technology ensured it became a source of great anxiety.

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[63] Lewis, *Disaster on the Dee*, p. 103.
[64] Lewis, *Disaster on the Dee*, p. 103.
[65] Schivelbusch, *The Railway Journey*, pp. 130-31. See Ernest Bloch, *Traces*, trans. by Anthony A Nassar (Stanford: Stanford University Press, 2006), p. 125.
[66] Schivelbusch, *The Railway Journey*, p. 131.

CHAPTER 2 – 'the Advance, of the Ten Thousand'[67]

The Cultural Impact of the Railways

During the period of the Industrial Revolution the changes encountered were not only physical but also social. As with the physical changes, not all the social changes were viewed by everyone as beneficial. In a report in 1838 to Parliament, the Commissioners appointed to investigate the provision of a railway system for Ireland stated:

> For instance, supposing that railroads, […] were to be suddenly established all over England, the whole population of the country would, speaking metaphorically, at once advance *en masse*, and place their chairs nearer to the fireside of their metropolis by two-thirds of the time which now separates them from it.[68]

The pace of life, epitomised by the railway, was quickening thus making the country appear smaller, and figuratively moving the mass of the population closer to the seat of government, and not just the seat but the 'fireside'. The 'fireside' is a place where only those who are invited should be seen, and the 'whole population of the country' was not welcome at this particular 'fireside', only the fortunate and honoured few. This, however, was not just a figurative moving of the population it was an 'advance *en masse*', a description evoking images of a vast army on the move. Before the advent of the railways the 'whole population', by which was meant the common people, was separated from the 'metropolis', that is the Government and the aristocracy, by the protective 'moat' of distance, but in 1838 that separation was being drastically reduced. The American War of Independence would have still been a vivid memory and the French Revolution continued across the Channel. In the Far East, Russia's threatened invasion of British held territories in India was prompting the first Anglo/Afghan War. Conflict involving potential revolution or civil war, was prominent in the minds of the Government, and in conflict the speed of mobility contains the element of surprise one of the keys to success.

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[67] William Wordsworth, *Guide to the Lakes*, ed. Ernest de Sélincourt (Oxford: Oxford University Press, 1906), p. 160.
[68] *Quarterly Review*, vol. 63 (1839), p. 22. As quoted by Schivelbusch, *The Railway Journey*, p.34.

To the Government what might be termed 'railway mobility' could be a two edged sword. In general the railway gave disturbing mobility to the masses, allowing them not just admission, but admission in great numbers, to areas previously only accessible to the privileged few. The North Wales line, however, was seen as a necessity, as, in the words of Simmons, 'the Irish interest in parliament naturally clamoured for the benefit of the new communication.'[69] It would enable Irish MP's, elected after the Act of Union in 1801, to travel between Ireland and Parliament more quickly and easily. As mentioned previously, the line was routed along the coast instead of through the central mountains purportedly for speed, but there was another reason. George Stephenson, at a meeting in Chester in January 1839, said, that compared with a line to Port Dynllaen, he saw 'the line to Holyhead, as less costly and presenting better gradients.'[70] The reference to the importance of gradients implies the trains may be heavily laden, and Samuel Lewis in his dictionary of North Wales gave an indication of why this might be. When, discussing the choice of line, he stated:

> much weight was given to its [the Chester to Holyhead line] claims by the favourable position of Holyhead, exactly opposite to Dublin, […] To these considerations was added the *probability* that the line would be made available for conveying the Irish mails, government stores, ***troops, and ammunition*** [my italics].[71]

This line could have been extremely important to the Government as the possibility of rebellion in Ireland meant that it may have been necessary to move men and equipment swiftly across the Irish Sea. The increase in speed for 'conveying the Irish mails' would also have meant that information would have been available more swiftly, giving notice of any problems that may have been arising. There was anxiety about loss of control both at home and abroad, and the railways caused tension by providing mobility not only to the Government but also the population. The perceived, if metaphorical, approach of the

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[69] Simmons, *The Railway in England and Wales*, p. 31.
[70] Samuel Smiles, *The Lives of the Engineers: The Locomotive. George and Robert Stephenson* (London: John Murray, 1879), p. 320. See Appendix 3, fig. 1.
[71] Samuel Lewis. "Heyop - Holyhead", A Topographical Dictionary of Wales (1849), pp. 418-30, http://www.british-history.ac.uk/report.aspx?compid=47834&strquery=holyhead [accessed 8.8.2013].

population nearer to 'their metropolis' could have been considered a potential threat of revolution rearing its head in Britain, as had been seen throughout Europe and also in America. As stated in Chapter 2, The Duke of Wellington 'disapproved' of the railways 'because they made the working class more mobile' thus increasing the perceived capacity for insurrection.[72]

Increased mobility meant that not just the seat of Government was under threat, but also the recreational seats of the aristocracy who made up a considerable portion of that Government. For example locations such as Brighton, which grew under the patronage of the Prince Regent, later King George IV, and the Norfolk Coast resort of Great Yarmouth were very popular watering places for the rich, and within easy coach distance from London. With the introduction of excursion trains to these seaside resorts 'the aristocracy retired to remote localities such as Scotland, Ireland, and the Lake District.'[73] They retreated to places as yet untouched by the tentacles of the rail networks and, therefore, hopefully out of reach of the general population. Class alone was no longer sufficient to maintain a distance between the different levels of the social structure. The middle classes were forming a bridge between the lower classes and the aristocracy, between money earned and money inherited, and the railway, with its democratic ticket availability, became an important symbol of this bridge. For the price of a first class ticket, anyone could ride in a first class carriage, no questions asked. Money overcame many obstacles and the passenger was not required to live in a specific area, speak in a particular way or belong to a certain club in order to buy a first class rail ticket, they simply had to have the money, and how that money had been acquired was of no consequence to the railway company. The boundaries of class had always been defined by, amongst other ways, where people lived and how they obtained their money. The Industrial Revolution was changing this, and the railways enabled the lower social classes to

[72] Morriss, *The Archaeology of Railways*, p. 26.
[73] Schivelbusch, *The Railway Journey*, p. 42.

experience the pleasures of the open country. It also allowed industrialists to purchase the life style of the landed gentry whilst still being able to oversee their factories. The railways were allowing people to penetrate the class boundaries. Even distant locations were no protection against invasion, as Wordsworth discovered with the intrusion of the Kendal and Windermere Railway into the Lake District.

In 1844 the proposal for the Kendal and Windermere railway brought a response from Wordsworth that, viewed today, could be regarded as intolerant in the extreme. His first letter to the Editor of the Morning Post asserted 'that the imperfectly educated classes are not likely to draw much good from rare visits to the lakes performed in this way [by excursion train]'.[74] Wordsworth went on to assure the editor 'we should have wrestling matches, horse and boat races without number, and pot-houses and beer-shops would keep pace with these excitements and recreations, most of which might too easily be had elsewhere.'[75] This comment also contains an overall feeling of the speed encapsulated in the railway. Words such as 'races', 'keep pace' and 'excitements' are suggestive of alacrity and momentum associated with the faster mode of travel. Soon after, he wrote a second letter expressing his opinion that full 'perception' of the landscape was only possible slowly and gradually, and that 'the humbler ranks of society are not, and cannot be, in a state to gain material benefit from a more speedy access than they now have to this beautiful region.'[76] Needless to say the 'humbler ranks of society' had little or no access prior to the railways, to places such as the Lake District. Wordsworth became distraught at the expectation of:

> the Advance, of the Ten Thousand[.] Leeds, I am told, has sent as many at once to Scarborough. We should have the whole of Lancashire, and no small part of Yorkshire, pouring in upon us to meet the men of Durham, and the borderers from Cumberland and Northumberland. Alas, alas, if the lakes are to pay this penalty for their own attraction.[77]

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[74] Wordsworth, *Guide to the Lakes*, p. 155.
[75] Wordsworth, *Guide to the Lakes*, p. 155.
[76] Wordsworth, *Guide to the Lakes*, p. 157.
[77] Wordsworth, *Guide to the Lakes*, p. 160.

The word 'Advance' again gives the impression of an army on the move with the phrase 'the men' suggesting soldiers 'pouring in' for an attack. It was, however, not just 'the humbler ranks of society' and the 'Advance of the Ten Thousand' that worried Wordsworth, it was also the 'strangers not linked to the neighbourhood, but flitting to and fro between their fancy-villas and the homes where their wealth was accumulated and accumulating by trade and manufactures' that troubled him.[78] His concern was not just the numbers of people, but also the type and class. The impression given in this letter was that it would be acceptable if the wealth of these 'strangers' had been old money, money which had been passed down via inheritance and status, rather than earned and accumulated 'by trade and manufactures'. The concern was not for the fact that the 'strangers' had money, but rather that the money had been acquired by 'trade', that is, the concern was class based and the boundaries of class were becoming permeable with the incursion of these men of 'trade' into areas previously held sacrosanct by the upper classes.

A very similar view was held by Ruskin who referred to 'excursionists' as 'stupid herds of modern tourists [who] let themselves be emptied like coals from a sack, at Windermere and Keswick.'[79] Ruskin goes on to write that 'I don't want to let them see Helvellyn while they are drunk' and his opinion of the abilities of 'these practical people' was that they 'cannot read, nor ever will; and […] have been taught that nothing is virtuous but care for their bellies, and nothing useful but what goes into them'.[80] Once more it is a fear of the 'wrong sort of people', being brought in by the train, rather than just the physical intrusion of the railway itself. The condemnation of the railway for this intrusion could, however, be viewed as misplaced. It may have been the railway that was responsible for transporting the 'Ten Thousand' from Leeds, but the railways were only responding to

[78] Wordsworth, *Guide to the Lakes*, p. 162.
[79] John Ruskin, 'Minor Writings Upon Art – The Extension of Railways', *On The Old Road, Volume 2* (New York: Kelmscott Society, 1834), p. 128.
[80] Ruskin, 'Minor Writings Upon Art – The Extension of Railways', p. 127.

something that had already happened, the movement from an agrarian society to a more urban one. The population in England, Wales and Scotland had more than tripled in the one hundred years between the census in 1801 and the 1901 census, from just over ten thousand to just over thirty seven thousand.[81] The movement from the country to the city was also recorded with 48% of the population in 1841 living in an urban environment, a figure which had risen to over 70% by 1881.[82] In 1801 there were only 15 cities with populations of over twenty thousand, but by1891 there were 185 cities of this size.[83] The railway companies responded to this growth, by laying lines to these new cities, and it was this population growth that saw the introduction of the excursion train service and the intrusion into the hitherto private leisure areas of the gentry.

The perception of an undisputed right to privacy and what could be termed 'the good life' for the upper classes is clearly demonstrated in Wordsworth's sonnet 'On the Projected Kendal and Windermere Railway', when he declares:

> Is then no nook of English ground secure
> From rash assault? Schemes of retirement sown
> In youth, and 'mid the busy world kept pure
> As when their earliest flowers of hope were blown,
> Must perish;--how can they this blight endure?[84]

The opening lines indicate that the subject of this poem is a land-owner, not a tenant or visitor, but the possessor of part of the countryside, suggestive of the rich land-owning gentry who take their seats in Parliament. Once more the terminology of war is seen in the use of the word 'assault'. This is seen as one battle in the war against, not just the railway, but also the class of people it will allow to access the Lake District. 'Schemes of retirement' are

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[81] Robert Woods, *The Population of Britain in the Nineteenth Century* (Cambridge: Cambridge University Press, 1995), p. 10.
[82] C.M. Law, 'The Growth of Urban Population in England and Wales, 1801-1911', *The Royal Geographical Society (with the Institute of British Geographers)*, 41 (June, 1967), p. 130.
[83] Adna Ferrin Weber, *The Growth of Cities In The Nineteenth Century: A Study in Statistics* (New York: The MacMillan Company, 1899), p. 43.
[84] Douglas Kneale, *Romantic Aversions*: Aftermaths of Classicism in Wordsworth and Coleridge (Montreal: McGill-Queen's Press, 1999), p. 99.

'sown/ In Youth' establishing that this is something the subjects of the sonnet are born into, that their wealth is inherited not acquired through working. The phrase 'mid the busy world kept pure' demonstrates the separation of the polluted town and the untainted countryside, but this is not just the physical pollution of smoke and dirt but also the potential pollution of the lower class making its way from the manufacturing cities into the unsullied country seats of the ruling class. This image of the unsullied countryside is also portrayed in Gissing's *The Crown of Life*. During their journey from London to Crewe Miss Derwent and Arnold Jacks are the epitome of modernity, with Jacks discussing politics and 'the theory of evolution.'[85] Miss Derwent counters by bringing up the subject of the pests which affect cultivation. At Crewe, leaving Jacks and the train, Miss Derwent moves into the countryside. The reader is told that there was '[no] corner of England more safely rural; beyond sound of railway whistle, bosomed in great old elms, amid wide meadows and generous tillage; sloping westward to the river Dee, and from it soft green hills descrying the mountains of Wales.'[86] Here in rural England Miss Derwent is safe from the 'sound of railway whistle' and the defilement that it brings from the city. It is a place of ageless time, with ancient trees and fields as yet untouched by the navvie's shovel. It echoes again, as previously seen in Chapter 1, Burke's inherited 'privileges' and 'long line of ancestors' which some in society believe should not be changed.[87] The railway, however, is not far away, and the view of the river Dee is a reminder as also discussed in Chapter 1, of the death and destruction it can bring, and the 'mountains of Wales' are no barrier to the onward progress of this symbol of modern Victorian Britain.

[85] George Gissing, *The Crown of Life* (New York: AMS Press, 1969), p. 83.
[86] Gissing, *The Crown of Life*, p. 86.
[87] Burke, *Reflections on the Revolution in France*, p. 47.

The contraction of what Schivelbusch describes as 'spatial distance' was further emphasized by the decision to standardize time across the country.[88] Until the spread of the railways, each town had its own time taken from the height of the noon sun, with almost thirty minutes difference between the western and eastern extremes of the country. Precise time had been of little importance prior to the Industrial Revolution. The agrarian society worked to solar time, sunrise, noon and sunset were the markers of a working day. The church clock rang the hours for those within earshot and church bells announced the services; more precision was unnecessary. The pace of life was that of the man on foot or carried by horse or carriage, where minutes mattered very little. The arrival of the railway changed that, exemplified by the publication of Bradshaw's *Railway Handbook* where timetables detailed to the minute the time trains should depart and arrive. The difference in local time began to be seen by some as problematic for both the railway companies and the travellers. An anonymous traveller's guide published in 1862 firmly advises the traveller that '[the] time of departure stated in the table is no fiction'.[89] It goes on to warn that:

> It should here be observed that the clocks at the various railway stations are universally set and regulated by "London time." […] Bearing this fact in mind, it will be wise, upon alighting at a provincial station to note the difference between the time registered there and the London time, so that the discrepancy may be duly allowed for in the traveller's subsequent movements.[90]

Minutes had become precious in the high speed age of the train, and the railway waited for neither the poor nor the rich. It was necessary for the traveller to be conscious not just of his or her local milieu but also what was happening in the rest of the country. The Great Western Railway was the first company to introduce 'London' or 'Railway' time for all its schedules and station clocks, and by 1855 most clocks in public places were set to Greenwich Mean Time (GMT). On 2 August 1880 the Statutes (Definition of Time) Bill received Royal

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[88] Schivelbusch, *The Railway Journey*, p. 42.
[89] *The Railway Traveller's Handy Book of Hints, Suggestions and Advice, Before the Journey, on the Journey and after the Journey* – no author given (London: Lockwood & Co., 1862), p. 28.
[90] *The Railway Traveller's Handy Book of Hints, Suggestions and Advice*, p. 28.

Assent and saw the end of 'local time' in Britain with 'London time' taking its place.[91] With the arrival of the Industrial Revolution, time in rural Britain had begun to assume an importance hitherto unknown. Factory workers were expected to be 'on time' for work and it was a time regulated by man not the sun. 'The clocking-on machine was invented in 1885 and time and motion studies to increase efficiency would be introduced only some twenty years later.'[92] Noon was now when the hands of the clock or watch dictated, no longer the sun. In Alan Plater's play *Only a Matter of Time*, Meredith, the Welsh farmworker, rebukes Franshawe who has come to explain London time to the villagers saying: 'No man, even one as eminent as your Mr Brunel, can say to the sun "you are in the wrong place", that's setting yourself up as God, and you can't do that', only to be told by Franshawe: 'Even so, this is the new age of reason, and that is what we are doing.'[93] Man, in the form of the railway companies, was taking control of his environment away from nature and placing himself in the position of a pantheistic God.

An article entitled 'Railway-time Aggression' in Chambers's Edinburgh Journal gave several anecdotes concerning the conflict within communities over natural time versus 'Railway time'. The article opened with: 'There is an "aggression" far more insidious in its advances than the papal one, and more wide-spreading in its effects'.[94] Here anxiety over the power of the railway companies was seen to supersede even much longer held concerns over the influence of Roman Catholicism. The narrator went on to tell of a conversation with a church beadle who, when asked if he went by 'Railway time' retorted 'Railway time! […] No indeed, sir: *we* leave those new-fangled notions to upstarts and Radicals. The church keeps to

[91] Peter, E. Davies, 'Railway Time', http://www.greenwichmeantime.com/info/railway.htm. [accessed 5.8.2013].
[92] Bruce Robinson, 'All Change in the Victorian Age, Time is Money', http://www.bbc.co.uk/history/british/victorians/speed_01.shtml [accessed 12.08.13].
[93] Alan Plater, *Only a Matter of Time*, BBC Radio 4, 16.15, 18 April 2013.
[94] William Chambers, Robert Chambers, 'Railway-Time Aggression', *Chambers's Edinburgh Journal, Volumes 15-16* (London: W.S Orr, 1851), p. 392.

the good old ways; and please God she will stick to them, in spite of her enemies.'[95] The use of the term 'Radicals' is interesting in its application to the railways, as it is a term also frequently associated with revolution, an anxiety already discussed, and the military based term of 'enemies' is used this time giving the impression of war between the church and the railway. In Dinah Craig's *The Ogilvies* Sir Robert Ogilvie also relates the railways to 'Radicals' when he declares that that the railway was 'the only useful innovation that the hateful march-of-intellect Radicals had ever made.'[96] It is not, however, equitable to see this as a conflict between religion and the railways, but rather between religion and progress, with the railways being the metaphorical symbol of that progress. It was not just the speed of the railways that caused the problem, it was rather what that speed permitted and also required, and how society would need to adjust to accommodate this new way of life. The railways were, at the time, the pinnacle in the quest for land speed. Prior to the introduction of the locomotive engine, however, even the horse drawn coach services were constantly vying with each other to provide the fastest service, with the mail coaches achieving this. As is seen in Dickens's *A Tale of Two Cities*, however this was not a first class passenger service:

> [Mr Lorry] walked up-hill in the mire by the side of the mail, as the rest of the passengers did; not because they had the least relish for walking exercise, under the circumstances, but because the hill, and the harness, and the mud, and the mail, were all so heavy, that the horses had three times already come to a stop.[97]

Road surfaces were poor until Thomas Telford introduced his system of appropriate rock foundations to support the heavy coach traffic. On steep hills all passengers, even those with inside seats, were expected to get out and walk, regardless of the weather, and those sitting on the outside of the coach had no protection from the elements. Journeys took many hours, and sometimes days, to complete but, like the railways, there was a constant striving to improve times. The London to Holyhead coach took 38 hours in 1808; 29 hours 17 minutes in 1830

[95] Chambers, 'Railway-Time Aggression', p.393.
[96] Dinah, M. Craik, *The Ogilvies* (London: Macmillan, 1890), p. 318.
[97] Charles Dickens, *A Tale of Two Cities* (Harmondsworth: Penguin Books, 1970), pp. 37-8.

and '[in] 1836 and the last two years of its existence, the journey was performed in 26 hours 55 minutes.'[98] The arrival of 'Railway time' in itself, therefore, should not be seen as the enemy, but rather a signal that the railway, as part of the Industrial Revolution, was bringing the whole country closer together. It was an indication that there was nowhere in Britain outside the modern way of life.

Whilst debating about the arrival of 'London' (G.M.T.) or 'Railway time', in *Only a Matter of Time*, Meredith also comments 'if we have London time does that mean we have London everything else? London clothes, London Language, London bards, London ballads, London legends? It won't be just passengers and freight on that line, it will be all the stuff you can't see.'[99] There were many examples of the fear concerning the physical 'stuff', for example in Northampton 'shoemakers […] were apparently worried that smoke from the railways would discolour their sheep.'[100] In *Middlemarch* Eliot describes how Mrs Waule fears that if the railway line crosses the land '[the] cows will all cast their calves […] and I shouldn't wonder at the mare too, if she was in foal.'[101] In the play Meredith is heard contemplating the murder of Franshawe in an attempt to stem the progress of railway time, and whilst it is inviting to see this as perhaps a present day, rather over-violent retrospective view of the situation, Eliot describes a very similar situation in *Middlemarch*. During a ride Fred Vincy comes across 'six or seven men in smock-frocks with hay-forks in their hands making an offensive approach towards the four railway agents who were facing them'.[102] Fred and Caleb Garth interrupt the attack and the railway agents, who had been attempting to survey the route, escape. Later Caleb tells the men 'you can't hinder the railroad: it will be made whether you like it or not […] The law gives those men leave to come on the land here.

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[98] Charles, G. Harper, *The Holyhead Road: The Mail-Coach to Dublin* (London: Chapman & Hall, 1902), pp. 16-17.
[99] Plater, *Only a Matter of Time*.
[100] Wolmar, *Fire & Steam,* p. 72.
[101] George Eliot, *Middlemarch* (Oxford: Oxford University Press, 1996), p. 520.
[102] Eliot, *Middlemarch,* p. 523.

The owner has nothing to say against it'.[103] The railways are an inevitable fact of life and neither the farm workers nor the land-owners could stop them. Similarly in *The Mill on the Floss* Mr Deane tells Tom 'the world goes on at a smarter pace […] It's this steam, you see, that has made the difference; it drives on every wheel double pace, and the wheel of fortune along with 'em'.[104] As Mr Deane states the driving force is 'this steam' which is driving 'every wheel' including the wheels of the railway, without the steam, the locomotive is stationary.

The railways, however, did not just cause a physical intrusion. As Meredith reminds Franshawe 'it will be all the stuff you can't see', it was also the culture and way of life that was under threat. On the Conway branch line this intrusion into culture became only too evident. The language used by employees on the line became the subject of conflict. The line had been purchased by London and North West Railway, who determined that English was the language to be used by its employees. On the 19th June 1895 a circular was issued by W. Dawson of the Permanent Way Department at Bangor concerning 'Men unable to speak English':

> Notwithstanding my instructions on this subject, I find that a number of men have been taken on who cannot speak English or who can only speak English a little. The services of all such men are to be dispensed with as it is contrary to the [Company's] rules to have them in their employ. Let me know which of the men you can dispense with first. I do not wish you to serve all the man with a weeks [sic] notice at once, but they must be paid off gradually, unless they learn to speak English in the meantime.[105]

This circular indicated that this had been an on-going issue with the Company and its employees. What is also interesting is the self-serving nature of the instruction that all the employees must not be sacked at once, but rather 'paid off gradually' in order not to inconvenience the company and perhaps act as an incentive to the remaining monoglot Welsh speakers. David Lloyd-George was MP for Caernarvon at the time and had, in fact, raised

[103] Eliot, *Middlemarch*, p. 525.
[104] George Eliot, *The Mill on the Floss* (London: Penguin Books, 1994), p. 405.
[105] W.G. Rear, *Railways of North Wales: Bangor* (Stockport: Foxline, 1992), p. 6.

this matter in the House of Commons previously. The Hansard record for that debate states: 'Complaints were made […] that Welsh-speaking Welshmen […] were being weeded out. At that time he [Lloyd-George] communicated with the company, and was assured that the dismissal of the men had nothing whatever to do with their nationality or language.'[106] Lloyd-George, however, went on to advise The House that '[when] the circulars were made public, when Mr Dawson could no longer deny the facts, […] it was said that the safety of the passengers and the traffic was concerned', thus it would seem that over one hundred years ago 'health and safety' was being used as an excuse for unacceptable behaviour. Lloyd-George, however, went on to assert, there had 'never been an accident that could be attributed to the fact that platelayers could not understand their orders.'[107] The irony of the apparent necessity of employees being able to understand English was emphasised when Lloyd-George went on to advise that 'forty per cent of their [London and North West Railway] station masters were monoglot Englishmen' a situation that did not apply in other countries such as India where '[the] English officials […] had to know the native language; and he asked for the same measure of justice in Wales as was meted out in Hindustan.'[108] This insistence of the precedence of the English language in Wales continued and increased for many years culminating in the campaign by the Meibion Glyndŵr (Sons of Glyndŵr) in the 1980s and 90s, to restore the culture and language of Wales, a campaign which continues today.

The Welsh language had always been a cause for concern to Britain as it emphasised Wales's independence, and this concern is perhaps encapsulated in the famous (or infamous) Encyclopaedia Britannica entry of 'for Wales see England'. In 1846 William Williams made

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[106] 'The London and North-Western Railway Company and their Welsh Speaking Employees'. Hansard Report 10 May 1895, vol. 33 cc963-96963, http://hansard.millbanksystems.com/commons/1895/may/10/the-london-and-north-western-railway#S4V0033P0_18950510_HOC_175 [accessed, 24 June 2013].
[107] 'The London and North-Western Railway Company and their Welsh Speaking Employees'. Hansard Report 10 [accessed, 24 June 2013].
[108] 'The London and North-Western Railway Company and their Welsh Speaking Employees'. Hansard Report 10 [accessed, 24 June 2013].

a speech to Parliament questioning education in Wales. A commission was set up, and in April 1847 reported, in an incident which became known as 'The Treachery of the Blue Books', that 'Welsh people were dirty, lazy, drunk, ignorant and immoral and attributed this to two factors, namely, the Welsh language and the chapel.'[109] In a drive to replace the Welsh language with English, school children were punished for speaking Welsh, the controversial 'Welsh Not', showing that the campaign against the Welsh language had already started before the expansion of the Chester to Holyhead rail line which was not completed until 1848. It is also true, however, that the introduction of the railway exacerbated this encroachment on the Welsh language. As will be discussed in Chapter 3 the mechanization of the print industry and reduction in publishing costs saw a huge increase in the availability of reasonably priced printed materials such as books and newspapers. Although magazines printed in the Welsh language were obtainable these were only published weekly or monthly, whereas the papers from London arrived by train on a daily basis. This 'made it possible for a worker in the Valleys to find out the latest news from the British empire as long as he, or she, could read English.'[110] From this it can be seen that English was promoted as the language of news, important affairs, and modernity, whereas the Welsh language was relegated to non-urgent, magazine information of seemingly less importance.

The 'penetration' of the English language into the Welsh speaking population was not the only incursion into Welsh culture. In 1889 Simmons records that '21,000 people went [by excursion train] on the August Saturday and Monday of 1889 to the medium-sized resort of Llandudno', a huge number of visitors for this relatively small resort the effects of which could be worth of further study.[111] A similar invasion, although of a much smaller scale, took

[109] Cennard Davies, *The Welsh Language* (Ceredigion: Y Lolfa, 2006), pp. 36-7.
[110] 'The Industrial Revolution,' http://www.bbc.co.uk/wales/history/sites/themes/society/ language_ industrialrevolution.shtml [accessed 7 July 2013].
[111] Simmons, *The Victorian Railway*, p. 301.

place on the Conwy branch line. In 1844 Betws-y-Coed saw the first visit of artist David Cox, an event which led to the establishment of Britain's first ever artists' colony. The increase in visitor numbers in the 1860's due to the establishment of the Conwy valley railway branch line saw some artists 'in despair that the peace and solemnity that had attracted them to Betws-y-Coed in the first place had been destroyed by the tourism that the village's reputation had given rise to.'[112] It must be remembered, however, that the branch line that brought the visitors also enabled the artists 'to migrate along the Conwy Valley' more easily than would have previously been possible, and it was, in fact, the artists themselves who had become the attraction for the visitors, so all cannot be blamed soley on the railway.[113] The branch line had been built at the request of a group of local men in Ffestiniog who felt they wanted an alternative to the narrow gauge line to Porthmadoc. On completion of the line L.N.W.R. 'started trying to attract as much traffic as possible […] the first item to be considered was slate'.[114] In addition to the line, the rail company constructed a dock at Deganwy on the Llandudno line and whereas '[up] to 1867 the whole of the Ffestiniog slate was sent away from Porthmadoc by ship; twenty years later only 72% went that way; by 1907, 46%' and eventually Porthmadoc ceased slate trading completely after World War 1.[115] In this instance it was the monopoly of the Ffestiniog narrow gauge line which prompted the desire for competition in the quarry owners in a quest for better transport prices for their slate. The railway company simply responded to this situation.

On consideration therefore, it can be maintained that whilst the local way of life and culture of some areas appeared to have been threatened by the arrival of the railway, it also opened opportunities. Although the railway may have exacerbated some problems, it was not necessarily the sole, or in some cases even a major, cause of these problems.

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[112] Alison Bradley 'Betws-y-Coed Artists' Colony 1844-1914', http://www.alisonsgallery.co.uk/ betws-y-coed/the_artists'_colony.html [accessed 9 September 2013].
[113] Alison Bradley 'Betws-y-Coed Artists' Colony 1844-1914' [accessed 9 September 2013].
[114] R.G. Harman, *The Conway Valley Railway* (Teddington: Branch-Line Handbooks, 1963), p. 9.
[115] Simmons, *The Victorian Railway*, p. 350.

CHAPTER 3 – 'books that went with you'[116]

The Railways and Literature

As has already been seen in Chapter 1 it is perhaps through literature that significant and deep seated anxieties about the railways are most clearly expressed. Neither poetry nor prose could remain independent from the effects of the Industrial Revolution in general and the spread of the railways in particular. Writers demonstrated all the emotions from hatred, through terror, to adoration. The subject is seen across the genres in novels by, for example Dickens and Trollope, the sensational fiction of Braddon, and Hardy's tragedies, and in Eliot's *Middlemarch* it is portrayed as an irresistible agent of change. The railways, however did not just influence writing, they affected reading itself. The introduction of W. H. Smiths' first bookstall at Euston station in 1848 denoted an important change in the act of reading.[117] It was no longer a past-time just to be undertaken, for example, in book-lined libraries, or as a group in front of the parlour or kitchen fire. It also became a way of, literally, passing the time, on long train journeys; as Ralph Harrington comments '[the] book itself as a convenient and personal delivery system for content (books that went *with* you, rather than you *going to them*) is essentially a product of the Victorian age.'[118] Books were now freely accessible, in the most public of areas, the railway station. The smoothness of rail travel meant that, unlike coach travel, it was possible to read in comfort. A plethora of equipment came onto the market ranging from cushions to support the books to lights for night travel. Trollope even constructed 'a little tablet and found after a few days' exercise that I could write as quickly in a railway-carriage as I could at my desk', could this be the world's first laptop?[119] Perhaps

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[116] Ralph Harrington, 'Reading on the move: a Victorian precedent', http://www.theliteraryplatform.com/ 2012/10/ reading-on-the-move-a-victorian-precedent/ [accessed 20 August 2013).
[117] 'The History of W.H. Smith – 1848', www.whsmithplc.co.uk/about_whsmith/history_of_whsmith/ [accessed 15 August 2013].
[118] Harrington, 'Reading on the move: a Victorian precedent' [accessed 20.8.13).
[119] Anthony Trollope, *An Autobiography* (Berkeley: University of California Press, 1978), p. 87. See also Appendix 4, fig. 1.

not, as Trollope writes that he still 'worked with a pencil and what I wrote my wife copied afterwards.'[120]

In Braddon's *The Lovels of Arden* it is a stranger who demonstrates the equipment to Clarissa during her overnight train journey home. He asks her:

> May I offer you some of these things? […] I have a reading lamp in one of my bags which I will light for you in a moment. […] He stood up, unlocked one of his travelling-bags, the interior of which glittered like a miniature arsenal, and took out a lamp, which he lighted in a rapid dexterous manner, though without the faintest appearance of haste, and fixed with a brass apparatus of screws and bolts to the arm of Clarissa's seat […] and having established Clarissa with her lamp and books, sank lazily back into his corner, and gave himself up to a continued contemplation of the fair young face, almost as calmly as if it had been some masterpiece of the painter's art in a picture gallery.[121]

In second and third class railway carriages there was no lighting at all, but even in first class carriages the lighting was very poor, and on night journeys extra illumination would have been necessary if the passengers wished to read.[122] This passage, however, reveals more than the ingenuity of Victorian inventors. The dialogue is between two strangers, a man and a woman, who have no third person to carry out the convention of an introduction. There is the potential that, although she is travelling in a first-class carriage, '[she] might have her maid lurking somewhere in the second-class', but at that moment Clarissa is unaccompanied.[123] The social and sexual boundaries have been dissolved and they are a man and woman who spend the night together alone. The railway carriage permits this type of intimacy, it is a setting which allows the transcendence of normal social propriety, and literature was swift to take advantage of this social and sexual change. The encounter is not without its danger. The man has a travel bag which when opened 'glittered like a miniature arsenal' it contains his 'weapons', his potential means of 'attack'. He is thoroughly familiar with these armaments and 'screws and bolts [them] to the arm of Clarissa's seat'. They are weapons

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[120] Trollope, *An Autobiography*, p. 87.
[121] Mary E. Braddon, *The Lovels of Arden* (London: John and Robert Maxwell, 1872), pp. 4-5.
[122] Fyfe, *Steam Powered Knowledge*, p. 106.
[123] Braddon, *The Lovels of Arden*, p. 5.

which are not to be easily thwarted or removed and the light will not allow Clarissa to hide in darkness, but keeps her in the stranger's view. Finally the stranger sinks 'lazily back into his corner' he is at ease, comfortable and relaxed, not at all troubled, but then the reader has already been told that he feels 'on a long dreary journey, a man may be forgiven for a good deal of idle curiosity.'[124] Already the dissolving of the social boundaries not only of class by the ability to purchase a first class ticket, as already discussed, but also of propriety, lays Clarissa open to uncalled for curiosity, which the tension of the public/private space of a railway carriage encourages. She is no longer 'a lady' entitled to the refinements of social respect, but a portrait on public display under a revealing lamp.[125] This is also reflected in the Duke of Wellington's letter to Miss Burdett-Coutts, when he writes: 'I am concerned that Lord Douro allowed Lady Douro to go up to London alone by the Rail Road. Between ourselves, it seems to be that such conduct is not respectful treatment'.[126] It is not just a question of safety as The Duke of Wellington also writes: 'She is old enough certainly to take care of Herself and I don't doubt will take very good care of Herself', but it is also a question of esteem.[127] It is a demonstration of the value placed on female members of the family that they should be accompanied if it is necessary that they travel on public transport. Similarly in Trollope's *He Knew He Was Right*, when Miss Stanbury sends Martha to fetch Dorothy on the train she insists '[there's] no place a young woman is insulted in so bad as those railway carriages, and I won't have her come by herself. If she is to live with me, she shall begin decently at any rate.'[128] Dorothy's reputation is to be protected in the public arena of the railway carriage, although it would seem that as Martha must go alone on the train to fetch her, Martha's reputation, as a servant, is not quite as important as Dorothy's.

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[124] Braddon, *The Lovels of Arden*, p. 4.
[125] Braddon, *The Lovels of Arden*, p. 4.
[126] The First Duke of Wellington, *Wellington and His Friends*, ed. The Seventh Duke of Wellington (London: Macmillan, 1965), p. 268.
[127] The First Duke of Wellington, *Wellington and His Friends*, p. 268.
[128] Anthony Trollope, *He Knew He Was Right* (Oxford: Oxford University Press, 1951), p. 73.

In Gissing's novel *The Crown of Life* Arnold Jacks is also very happy to be alone with Miss Derwent and eager to ensure that no-one else enters the railway compartment he is to share with her. He 'looked forbiddingly at a man who approached; who, in his turn, stared haughtily and turned away.'[129] The male characters of the novel understand the potential ulterior uses of a railway carriage, and this understanding also crosses class boundaries as the reader is told that had Jacks known earlier he 'would have settled it with the guard.'[130] As the train departs Jacks and Miss Derwent 'merrily skirmished on political and other grounds; they amused each other, and, as it seemed, in a perfectly harmless way; the English way of mirth between man and maid, candid, inallusive, without self-consciousness.'[131] The use of the word 'harmless' reminds the reader that this is a conversation taking place between an unmarried man and woman in the seclusion of a railway carriage, there is the potential for socially 'harmful' behaviour, if only involving Miss Derwent's reputation. Gissing goes on to tell the reader that '[not] a little remarkable was the absence of the note of sex from their merry gossip in the narrow seclusion of a little railway compartment.'[132] The author is at great pains to inform the reader that things have not gone what might be termed 'too far' in this relationship; the reader is reassured that 'Irene was as safe with this world-conquering young man as with her own brother; would have been so, probably, on a desert island. They were not man and woman, but English gentleman and lady'.[133] Although this reassurance is given there is still the tempering word 'probably' inserted, there is still the frisson of doubt for the reader. This is, after all, a 'modern' situation, with the potential for breaching the rules. This, albeit symbolic, breaching of the rules is clearly seen in Thomas Hardy's *A Pair of Blue Eyes*. Elfride is seen by Mrs Jethway descending from the overnight train with Stephen on returning from her abortive elopement. Mrs Jethway threatens to expose the

[129] Gissing, *The Crown of Life*, p. 81.
[130] Gissing, *The Crown of Life*, p. 81.
[131] Gissing, *The Crown of Life*, p. 82.
[132] Gissing, *The Crown of Life*, p. 85.
[133] Gissing, *The Crown of Life*, p. 85.

episode and ruin Elfride's reputation, and it is only on Mrs Jethway's death that the threat is removed. The train in these instances is metaphor for the modernity of the times. It is outside the control of social rules which must be adapted for it, to allow integration not only of the classes but also gender, and as such railway travel is something which must be regarded with suspicion. The word 'fast' can be applied to the speed of the train but, with a different connotation it can be applied to a way of life, '[living] too fast; extravagant in habits; devoted to pleasure, dissipated; usually implying a greater or less degree of immorality' (*OED* online, def. 10). In literature of, and leading up to, the *fin-de-siècle* period the use of 'fast' as an adjective applied to people was seen as a description of a modern way of life and in many cases something to be frowned on, and as with the train, it was to be regarded with suspicion.

It was not only literature in the form of books which was becoming more available. In *The Lovels of Arden,* during her journey Clarissa uses the lamp to read 'a heap of newspapers and magazines thrown pell-mell into the empty seat'.[134] There is a complete disregard for any value of this printed matter, showing that the establishment of cheap printing encouraged a pronounced change in the reading habits of the public. Printed material was no longer the prerogative of the wealthy, it was now within the reach of all social levels. The railways were an important part of this, in both the rapid distribution of newspapers and magazines, and the sale of books at the cheaper end of the market from station kiosks. Mechanization of printing meant that the 'small, haphazardly adapted workshops [using] heavy wooden hand presses' of the early nineteenth century, had made way for 'specially-built factories housing batteries of noisy machines, and where nearly all the processes were fully mechanised.'[135] Printing moved from approximately 200 hand produced prints per hour to over 1,000 per fully mechanized machine. The increase in

[134] Braddon, *The Lovels of Arden,* p. 4.
[135] British Library, 'Aspects of the Victorian Book – Printing During the Nineteenth Century', http://www.bl.uk/collections/early/victorian/pu_yello.html [accessed 15.8.2013].

industrialised paper making and the use of wood pulp as opposed to rags, together with the removal of stamp duty on newspapers, facilitated a dramatic decrease in the cost of publishing and printing of all types of literature. This decrease had a significant effect on, in particular, the type of books being published. In 1825 'high' priced books, that is books costing over ten shillings (50p in decimal currency) outweighed the combined percentage sales of 'medium' and 'low' priced books (three shillings seven pence up to ten shillings, and three shillings and six pence and under respectively).[136] By 1855 this figure had been reversed, with low priced books outselling the medium and high priced publications combined, and by 1895 the percentage had risen to approximately 65%.[137] Amongst these cheaper books were the 'yellowbacks' a type of publication which John Carter describes as follows:

> "Yellow-back" was the nickname given to the particular type of cheap edition evolved about the middle of the last century for display and sale on railway bookstalls. It was usually (but not always) a cheap edition of fiction; it usually (but not always) cost two shillings; its basic colouring was usually (but not always) yellow – to which last characteristic, not surprisingly, it owed its *sobriquet*.[138]

To gain a better understanding, the figures perhaps need putting into some sort of context. The wage of a 'common' labourer was around twenty shillings (£1.00) per week for a '10-hour day, 6-day week.'[139] It can be seen therefore that although classed as 'a cheap edition of fiction' even the yellow-back was relatively expensive at around a tenth of the weekly wage, whereas today the average paper-back at around seven pounds is a thirty-sixth of a minimum wage, forty-hour week, employment. Even at this price, however, in today's parlance the books were 'flying off the shelf', and it is interesting, though obviously not definitive, to note

[136] British Library, 'Aspects of the Victorian Book – Publishing, Introduction [accessed 15.8.2013] See Appendix 4, fig. 2.
[137] British Library, 'Aspects of the Victorian Book – Publishing, Introduction [accessed 15.8.2013] See Appendix 4, fig. 3.
[138] John Carter, *New Paths in Book Collecting* (New York: C Scribner's Sons, 1934), p. 127. As quoted by Richard Overell, Special Collections Librarian at Monash University Melbourne, http://monash.edu/library/collections/exhibitions/yellowbacks/xyellowbackscat.html.
[139] James Skipper and George P. Landow, 'Wages and Cost of Living in the Victorian Era', http://www.victorianweb.org/economics/wages2.html [accessed 17.8.13].

the much used condition of the cover of *Lady Audley's Secret* compared to *Northanger Abbey* and *Sketches by Boz* in the Monash University's collection of yellowback books.[140] Monash University Librarian Richard Overell commented: 'That [*Sketches by Boz*] and Lady Audley are rather rubbed examples of yellowbacks, probably because of the number of readers they had, especially the Mrs. Braddon.'[141] It is not too great a stretch to believe that these were books shared and passed amongst family and friends, not entombed in 'the library' of middle and upper class families.

The type of publication on sale at places such as railway stations was viewed as being very inferior, and as Harrington indicates 'highbrow critics and leader writers in *The Times* reacted with shock and outrage to the sensational volumes that filled the shelves of railway bookstalls, as publishers invited travellers to while away their journeys with titles such as *Violet: Or, the Danseuse* and *Zingra, the Gypsy*.'[142] This reaction is understandable as the act of reading expanded out of the realms of education and the culture of the aristocracy, into the lives of ordinary people. Although didactic writing, which informed and aimed to improve, was still desired and provided, there was also a need for writing which entertained, which could be picked up and put down at short intervals by readers who did not have the luxury of long uninterrupted leisure hours and on occasion may need to fill the time spent on rail journeys. This need was fulfilled, in part, by the magazines which proliferated during this period. *Punch, Household Words, Casell's Family Magazine, All the Year Round* and *Illustrated London News* are just a few of the magazines being published at this time, and it was in these magazines that the serial form of the novel became popular. Braddon, Collins, Dickens, Hardy and Trollope are just a few of the names who wrote for the magazines.

Braddon's *Lady Audley's Secret* was one of these novels which appeared in serial form in 1861-2 as well as a three volume novel. The plot ranges over considerable distances,

[140] See Appendix 4, figs. 4, 5 and 6.
[141] E-mail dated 19 August 2013 to Val Price.
[142] Harrington, 'Reading on the move: a Victorian precedent', [accessed 20.8.13).

and in his chapter on 'Railroad Space and Railroad Time', Schivelbusch asserts that with the introduction of the railway: '[a] given spatial distance, traditionally covered in a fixed amount of travel time, could suddenly be dealt with in a fraction of that time […] a shrinking of space'.[143] *Lady Audley's Secret* demonstrated this by using the railways to, on the one hand, considerably expand the location for the novel, whilst on the other hand contracting the time it took to cover that distance. Throughout the novel the reader is told that Robert travels, not just by train but by express train, and there are fourteen references to this, once again the emphasis is being placed on speed. It is this speed which enables him to race between, London, Audley Court in Essex, Ventnor on the Isle of Wight and the Dorsetshire residence of Mr Harcourt Talboys. Alison Byerley believes that '[by] integrating the railway into her plot, Braddon not only grounds her novel in realistic detail, but also aligns her hero with the train-going reader'.[144] This alignment is important if Braddon is to appeal to this new 'breed' of reader. Speed, however, even in literature is still subject to class. The Parliamentary trains are the antithesis of the express. The Railway Regulation Act of 1844 stated that these trains must travel once a day on a week-day, at no less than 12mph, stop at every station, 'shall be provided with Seats, and shall be protected from the Weather' and that '[the] Fare or Charge for each Third Class Passenger by such Train shall not exceed One Penny for each Mile travelled.'[145] This is not the train which enabled George to speed from Liverpool to London when he docked from Australia, and sent him with Robert 'whirling through the pretty open country towards Portsmouth.'[146] Nor is it the express service normally used by Robert to speed from place to place and rapidly accomplish his investigations. The Parliamentary train is the 'slow train' for which 'he had to wait an hour and a quarter'.[147] This is the train that

[143] Schivelbusch, *The Railway Journey*, p. 33.
[144] Alison Byerly, 'Technologies of Travel and the Victorian Novel', in *The Oxford Handbook of the Victorian Novel*, ed. Lisa Rodensky (Oxford: Oxford University Press, 2013), p. 299.
[145] The Railway Regulation Act [accessed 4 September 2013].
[146] Mary, E. Braddon, *Lady Audley's Secret* (Oxford, Oxford University Press, 1998), p. 39.
[147] Braddon, *Lady Audley's Secret,* p. 97.

delays him so long that '[half] a dozen vessels might sail for Australia while he roamed up and down the long platform, tumbling over trucks and porters, and swearing at his ill-luck.'[148] The speed of the train is not within his power. Unlike the 'half-a-crown' paid to the guard on the train which will allow him to smoke his cigar, no amount of money will make the train travel any faster and Braddon uses this powerlessness to create a sense of empathy and agitation for her readers, many of whom could be reading the novel on a train.[149] Often within the story it is the speed of relevant trains that is a facilitator of the plot. Braddon's meticulous narrative demonstrates how events can take place solely due to train times. For example the coachman tells Robert that 'Lady Audley started for London by the 12.40 train' and the reader is then advised that, having missed this train, Robert 'caught an express that left Brentwood at three o'clock'.[150] The express service allows Robert to reach Shoreditch station at 'exactly five minutes past four', but Lady Audley still has time to arrange for a locksmith to allow her to gain access to Robert's apartment in his absence and return to Shoreditch station just in time to meet Robert on his arrival from Brentwood station.[151] A complex and minutely choreographed part of the narrative.

It is not only as a facilitator that the reader can see the train, it can also be used, especially in Mr Harcourt Talboys case, as a descriptor: '[he] was […] tall, straight, bony, and angular, with a square pale face, light grey eyes, and scanty dark hair'.[152] He was physically comparable to the hard unyielding nature of the engine, the 'light grey eyes and scanty dark hair' reminiscent of the lights of the engine and the smoke from the chimney. 'There were no shady nooks in his character into which one could creep for shelter from his hard daylight […] He looked at everything in the same broad glare of intellectual sunlight'.[153]

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[148] Braddon, *Lady Audley's Secret,* pp. 97-8.
[149] Braddon, *Lady Audley's Secret,* p. 143.
[150] Braddon, *Lady Audley's Secret,* p. 142.
[151] Braddon, *Lady Audley's Secret,* p. 144.
[152] Braddon, *Lady Audley's Secret,* p. 181.
[153] Braddon, *Lady Audley's Secret,* p. 181.

Like the train which stops for just a few moments then moves on, he did not offer any 'shady nooks' or 'shelter' or any comfort to his daughter Clara. He was unable to adapt to the situations of others, 'his mind ran in straight lines, never diverging to the right or the left to round off their pitiless angles', he could never leave his metaphorical track and never conciliate or reconcile his ways and opinions to those of others.[154] Finally the reader is told that '[he] was vain of that unwavering obstinacy which no influence of love or pity had been ever known to bend from its remorseless purpose.'[155] This passage is the essence not only of the man but also of the locomotive, with the use of the word 'remorseless' stressing the unstoppable nature of both Harcourt Talboys and the train. The obstinacy of both man and machine cannot be influenced by either love, in the case of the man, or by man in the case of the machine.

Dickens's *Dombey and Son* was another serial novel which appeared in nineteen monthly episodes between October 1846 and April 1848. As previously mentioned a significant event in the story was the destruction of Staggs's Gardens to make way for the railway. This, however, is certainly not the only aspect of the railways that is covered in the novel. After the death of his son Paul, Mr Dombey takes a railway journey with Major Bagstock. The journey becomes a symbol of his uncontrollable despair over the loss of his son and the reader is told: '[the] very speed at which the train was whirled along mocked the swift course of the young life that had been borne away so steadily and so inexorably to its fore-doomed end.'[156] The speed of the railways has affected the hitherto pedestrian tempo of life, unstoppably increasing the pace until the inevitable finality of death. This is a finality that no-one, not even God, can control and it is possible to see in this passage the national debate of faith and doubt which was taking place at this time. Paul's life journey is 'fore-doomed', this is not the expression of a journey towards everlasting joy. Like the railway

[154] Braddon, *Lady Audley's Secret*, p. 182.
[155] Braddon, *Lady Audley's Secret*, p. 182.
[156] Dickens, *Dombey and Son*, p. 175.

journey it comes to an end, and does not appear to be part of a route to a better life. The passage goes on to state: 'The power that forced itself upon its iron way – its own – defiant of all paths and roads'.[157] The image of the rail network forging a new map which is imprinted over the land has already been discussed, but here the new map is one created by an irresistible 'power' and force which is 'defiant', a word which the *OED* defines as, amongst other things: 'Renunciation of faith, allegiance, or amity; declaration of hostilities'. The pre-eighteenth century path was one of religious belief built on over the centuries, following ideas and theologies which had been delineated before; rather like Telford's construction of a road over the pathway of the original Roman way. With the Age of Enlightenment, however, there came a time of reconsideration and a progression towards a 'renunciation' of this blind 'faith'. This was supported by publications such as Charles Darwin's 'The Origin of Species' and Sir Charles Lyell's uniformitarianism assertion that: 'the Earth must therefore be very ancient because these everyday processes work so slowly.'[158] This threw doubt on James Ussher's declaration that the world was formed in 4004 BC creating even more fuel for the 'faith and doubt' debate. The sense of loss of control is very clear. Society in general and religion in particular, was taking a completely new path.

Mr Dombey's journey continues with the symbolism of the railway 'piercing through the heart of every obstacle'.[159] The metaphoric 'penetration' of the railway has already been seen, and here the symbol of 'piercing through the heart' is a distinctly religious representation of this act of penetration. It conjures images of the soldiers who 'with a spear pierced his [Christ's] side, and forthwith came there out blood and water.'[160] Whilst the railway was in no way itself the implement of destruction for religion, its modernity

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[157] Dickens, *Dombey and Son,* p. 175.
[158] Encyclopædia Britannica, 'Charles Lyell, Baronet. New Approach to Geology', p. 2, http://www.britannica.com/EBchecked/topic/352672/Sir-Charles-Lyell-Baronet/4377/New-approach-to-geology [accessed 18.8.13].
[159] Dickens, *Dombey and Son*, p. 175.
[160] St John 19. 34.

associated it with those secular ideas that were questioning the validity of religiousness. The railway was seen as having an unstoppable power and force which previously had only been seen in the forces of nature and/or God. Finally the reader is told that the 'power' behind these images conjured by the train and 'dragging living creatures of all classes, ages and degrees behind it, was a type of the triumphant monster, Death.'[161] Although *Dombey and Son* was written almost twenty years before the railway accident Dickens was involved in, this is an almost precognitive image. In her essay on the accident Jill Matus writes: 'The central and rear carriages fell off the bridge, plunging onto the river-bed below. Only one of the first class carriages escaped that plunge […] "It had come off the rail and was […] hanging over the bridge at an angle".'[162] Ten people were killed in the accident and forty injured. An engraving of this event which appeared in the *Illustrated London News* is vividly suggestive of the image created twenty years earlier in *Dombey and Son*.[163]

In art and culture of the period, the depiction of the path to Hell has been represented by a train plunging off the end of a broken rail down to the underworld taking its passengers to perdition. John Martin's 'The Last Judgement' exhibited in 1853 portrays a train plummeting into the chasm with images of God sitting in final judgement over the souls of women and men. The Railway Mission also produced a poster called 'The Up and down Line', which shows a very similar image of a train tumbling off the edge of a precipice into the river of Eternity which is flowing down to Hell.[164] Further back there are other trains on the down line to damnation with coaches labelled 'deceit', 'riches', 'lust', 'pride' and 'fame', characteristics which were censured in Victorian Britain.[165] In contrast there is also the 'Up Line' which terminates in an area labelled 'WAITING FOR THE LORD', which again is

[161] Dickens, *Dombey and Son*, p. 175.
[162] Jill L. Matus, 'Trauma, Memory, and Railway Disaster: The Dickensian Connection', *Victorian Studies*, 43, number 3 (Spring 2001), pp 413-36, p. 413.
[163] See Appendix 4, fig. 7.
[164] See Appendix 4, figs. 8 and 9.
[165] See Appendix 4, fig. 10.

very similar to the depiction in Martin's painting of God sitting in judgement in the mountains surrounded by angels.[166] The representation of the railway in a religious context emphasised the use of the train as metaphor and representation of modernity but also as the symbol of modernity rebelling against what was the status quo. The railway can be seen as an element of tension, a means of enablement for the lower classes, allowing access to areas unavailable before as well as a weapon of penetration to the upper classes, which included the upper hierarchy of the church, piercing their privacy and privileges. Carter takes this imagery of penetration much further with his analysis of Turner's painting *Rain, Steam and Speed*. Carter suggests 'the way his train penetrates the picture's space suggests a crueller joke' commenting that '[those] dancing figures might be naiads. They might equally well be vestal virgins enjoying their last fling as the Great Western's express violates their temple.'[167] This reading may be seen by some as taking 'interpretation' too far, but it is fair to say that certain social groups in the 1800s did see the invasion of the railway as an unjustified violation of their own personal temples.

Literature and the visual arts can therefore be seen as a means of metaphorically expressing the wider fears and anxieties which are being experienced by society of the period. Although it can take advantage of those worries and concerns in genres such as sensation and horror fiction it also enables concerns to be expressed and examined in a safe environment, using imagery and allegory, such as the railway, to examine these different fears and apprehensions.

[166] See Appendix 4, fig. 11.
[167] Carter, Railways and Culture in Britain, p. 54.

CONCLUSION

A Responder not an Innovator

It has been seen, therefore, that the railways not only changed the physical face of the country in the nineteenth century, but they also changed society in that period. To many people the train became the symbolic representation of the Industrial Revolution even though it was only a small part of that immeasurable event. To different sections of society the railway represented different things ranging from the Devil incarnate to the emancipation of the lower classes. Speed was one of the railway's primary contributions to the way of life at the time, but with this speed came danger and even death. Passengers were no longer totally dependent on the vagaries of nature, with muddy coach roads which meant passengers had to get out and walk and weather and tide regulated coastal ferries. These were replaced, however, by other discomforts and dangers not as well understood, and control was in the hands of people who did not yet completely comprehend the new technologies involved. Travel was no longer the sole prerogative of the rich with the available time and money; it was accessible to everyone ranging from those who could afford one penny per mile on the Parliamentary trains to the First Class traveller. This availability, however, also created concerns. Barriers were being breached by those with money but not necessarily class and the removal of physical as well as well as social barriers drew everyone into closer proximity.

This proximity created anxiety and concerns in the government, aristocracy and gentry who saw a threat to their privileged way of life from this expansion of the working class and creation of the aspirational middle-class. It also created concern in the lower strata of society, as slum housing was cleared and new lines criss-crossed the country. It is too simplistic, however, to only blame the railways for this anxiety. It was not the railways who created the emergent middle-class with their 'new' money, rather the Industrial Revolution as a whole. It was the creation of the manufacturing cities in the initial instance, providing large

centres of population which the railways then serviced, taking thousands of people on excursion trains to the coastal watering places of the aristocracy. It was not the railways themselves but the mind of 'Empire' who insisted on 'English only' and 'English is best' as a means of communication. The railways simply enabled the spread of English culture to be carried out much quicker and easier. The braking technology was available to make trains safer, but the blinkered outlook of companies meant it was not employed. The track construction technology was sufficient but not fully understood by the manufacturers making the component parts and the engineers using them.

It is reasonable therefore to see the antagonism felt towards the railways, as demonstrated by people, organizations and society as a response not to the railways per se but rather to the changes in general spreading across the country. The questioning of religious faith, inherited wealth and status and the concept of Empire, all of which had, in the past, been the backbone of national perception, had under-mined self-assurance at some levels whilst it opened new thinking at other levels. The Industrial Revolution was a period of invention and this invention related not only to the physical inventions of for example steam engines, electricity and mechanization in general, but also the development of new thinking and new ideas. New thinking and ideas meant building on, as well as changing or even discarding previous thought and philosophy, and, as is frequently the case, during the nineteenth century this change was driven from the lower ranks of society upwards as the aggregation of the working class enabled people to exchange ideas and present a more united front. The railway was seen as a force for change, both literally and figuratively, as it changed the face of the country it travelled over and it changed the travellers who used it.

The expansion of the passenger railway network came at the conclusion of the Industrial Revolution, responding to the changes that had been witnessed over previous years. For good or ill the railway became a symbol of those changes, a heavy burden for the 'iron

horse' of the eighteenth century to pull. The fact that rail transport is flourishing today with bullet trains, HS1 and HS2 would indicate, however, that despite many crashes, delays and derailments, the locomotive engine in its current reincarnation is still alive and well and steaming into the twenty first century.

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Woods, Robert, *The Population of Britain in the Nineteenth Century* (Cambridge: Cambridge University Press, 1995)

Wordsworth, William, *Guide to the Lakes*, ed Ernest de Sélincourt (Oxford: Oxford University Press, 1906)

APPENDIX 1

Fig 1 – Sign at Chester Station – September 2013

(Photograph by Val Price)

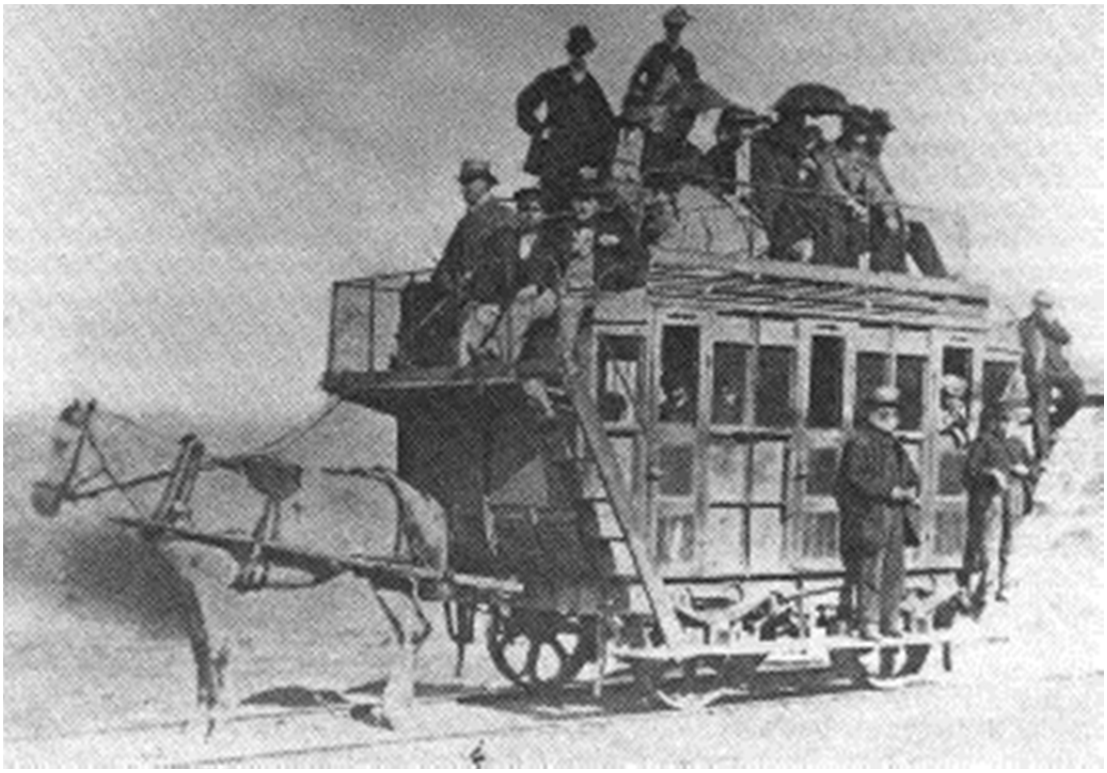


Fig. 2 - The Swansea to Mumbles Line – opened 25 March 1807

(http://www.welshwales.co.uk/mumbles_railway_swansea.htm [accessed 16 September 2013)

APPENDIX 1

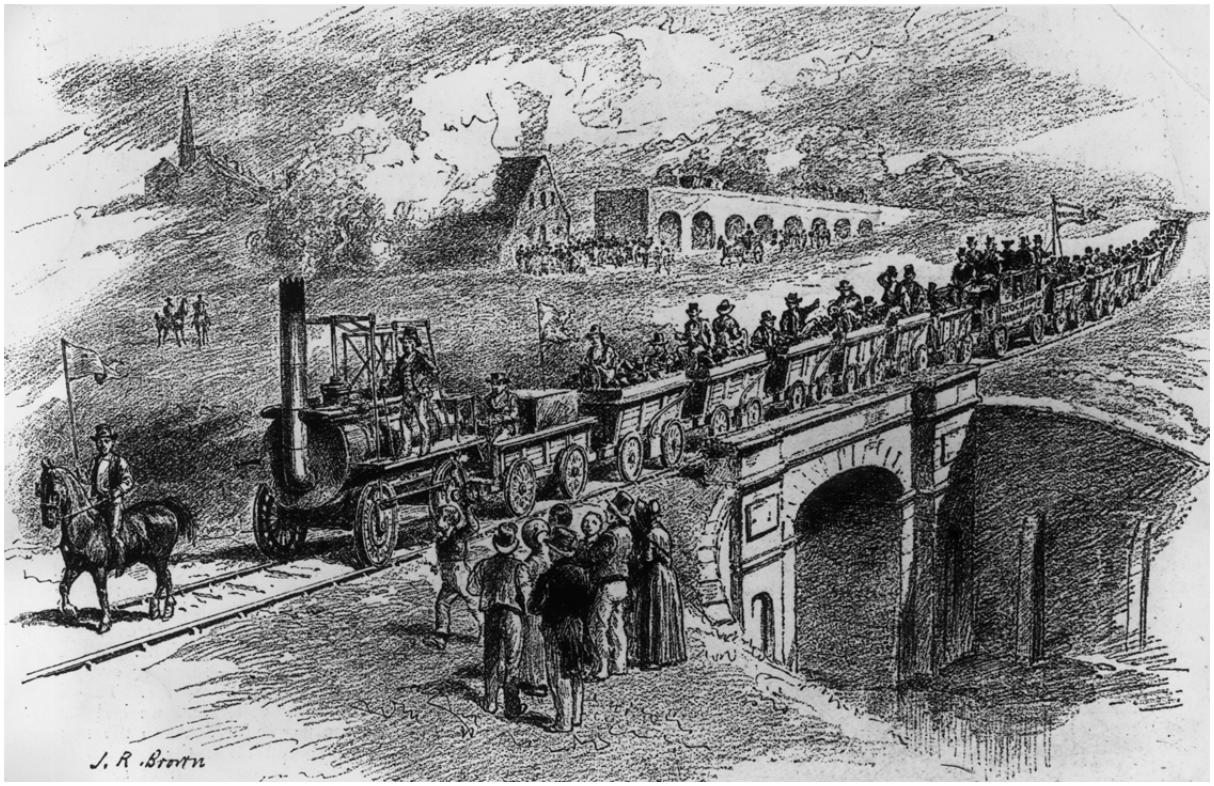


Fig. 3 – Opening Day on the Stockton and Darlington Line

('Stockton & Darlington Railway – The Opening' p. 5
http://www.railcentre.co.uk/stockton/opening5.htm [accessed 4 August 2013])

Fig. 4 - Third Class Open Railway Carriage

(PhotographYork Railway Museum – July 2013 – Val Price)

APPENDIX 1

Fig. 5 - Replica of George Stephenson's 'Premium' engine (later renamed 'Rocket')

(PhotographYork Railway Museum – July 2013 – Val Price)

APPENDIX 2

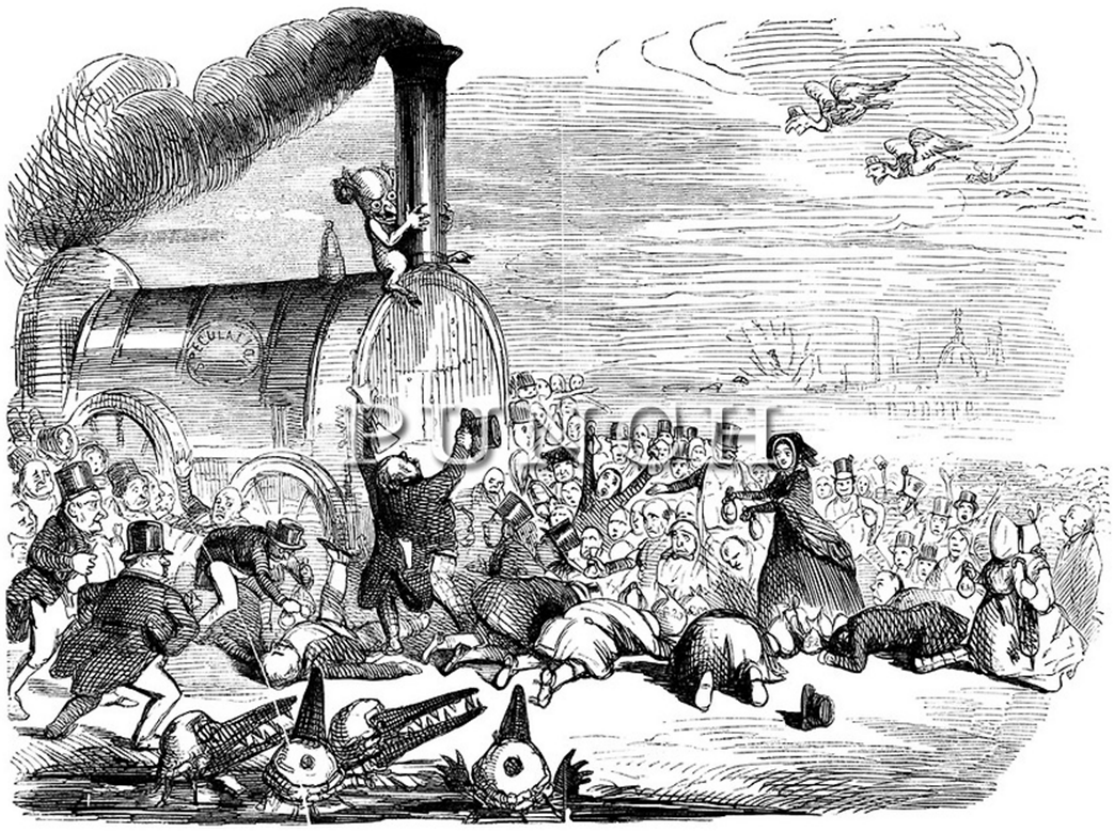


Fig. 1 Cartoon in Punch Magazine

(*Mr Punch's Railway Book*, ed. J. A Hammerton, p. 151,
http://www.gutenberg.org/files/35027/35027/h35027-h.htm [accessed 8 September 2013])

APPENDIX 2

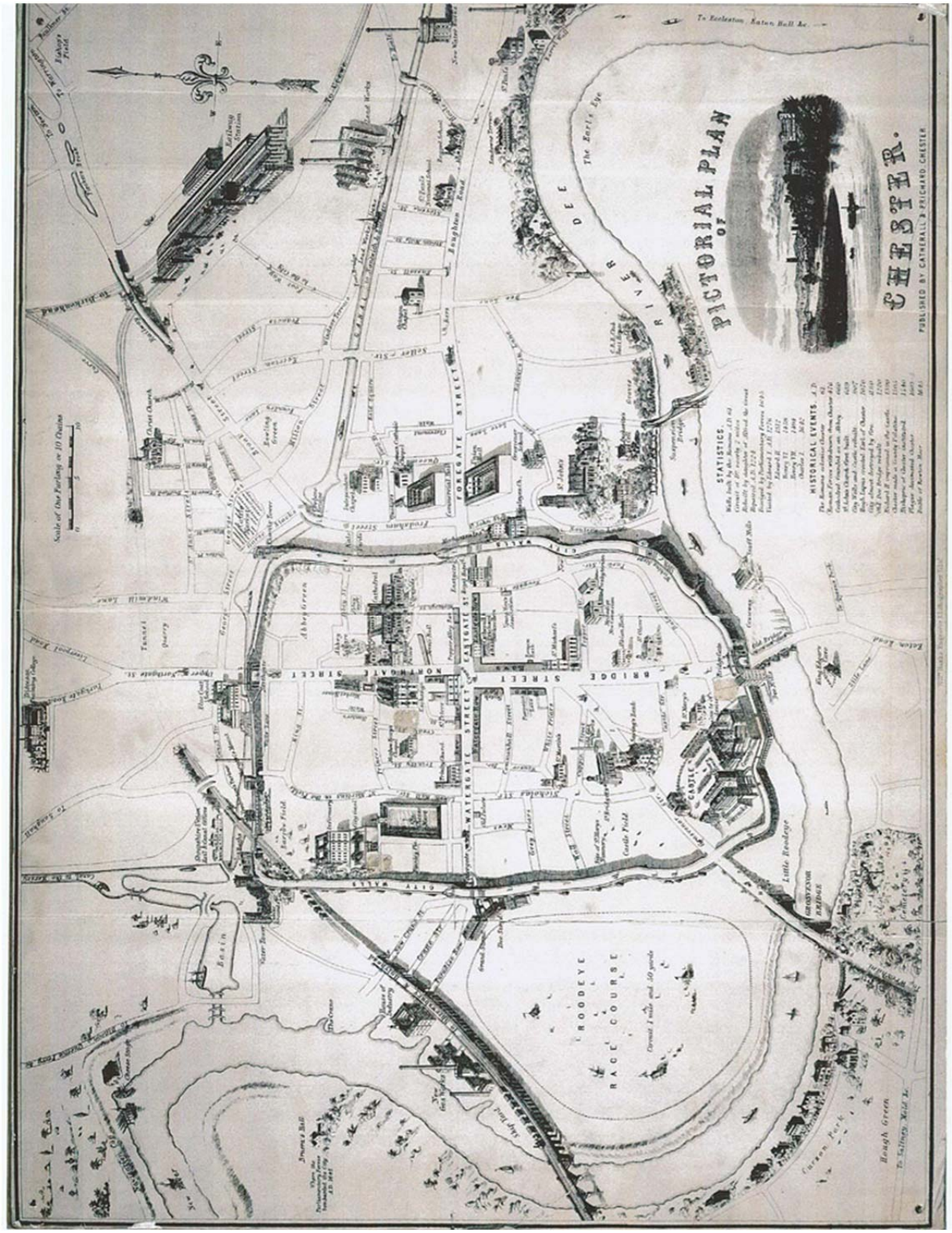


Fig. 2 - Catherall & Pritchard: Pictorial Plan of Chester, mid-19th century

(Courtesy of The Black and White Picture Place http://www.chesterwalls.info/gallery/oldmaps/catherall.jpg)

APPENDIX 2

Fig. 3 - Train exiting the 'slight flesh wound' as described by Jack Simmons in *The Victorian Railway*, p. 159

(V.R Anderson and G.K. Fox, *An Historical Survey of Chester to Holyhead Railway, Track Layouts and Illustrations* (Poole, Oxford Publishing Co. 1984), plate 19.)

Fig. 4 – Monument to those who died in the Abergele Train Crash of 1868
(Paul Atterbury, *An A-Z of Railways: A Nostaligic Tour of Britain's Railways*
(Cincinnati: David & Charles, 2010), p. 29.)

APPENDIX 3

Fig. 1 – Track Gradient from Chester to Holyhead
(V.R. Anderson and G.K. Fox, *An Historical Survey of Chester to Holyhead Railway: Track Layouts and Illustrations* (Poole: Oxford Publishing, 1984), no page or plate number.)

APPENDIX 4

Fig. 1 - Anthony Trollope's Portable Writing Slope

(Courtesy of the British Postal Museum and Archive)

APPENDIX 4

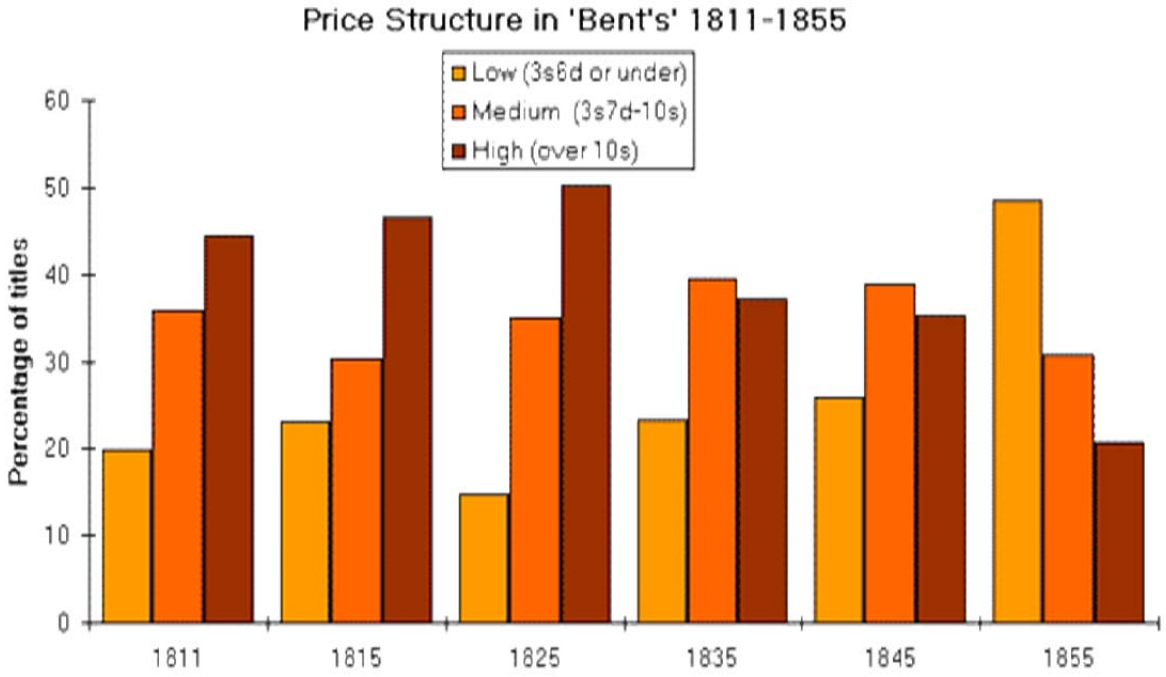
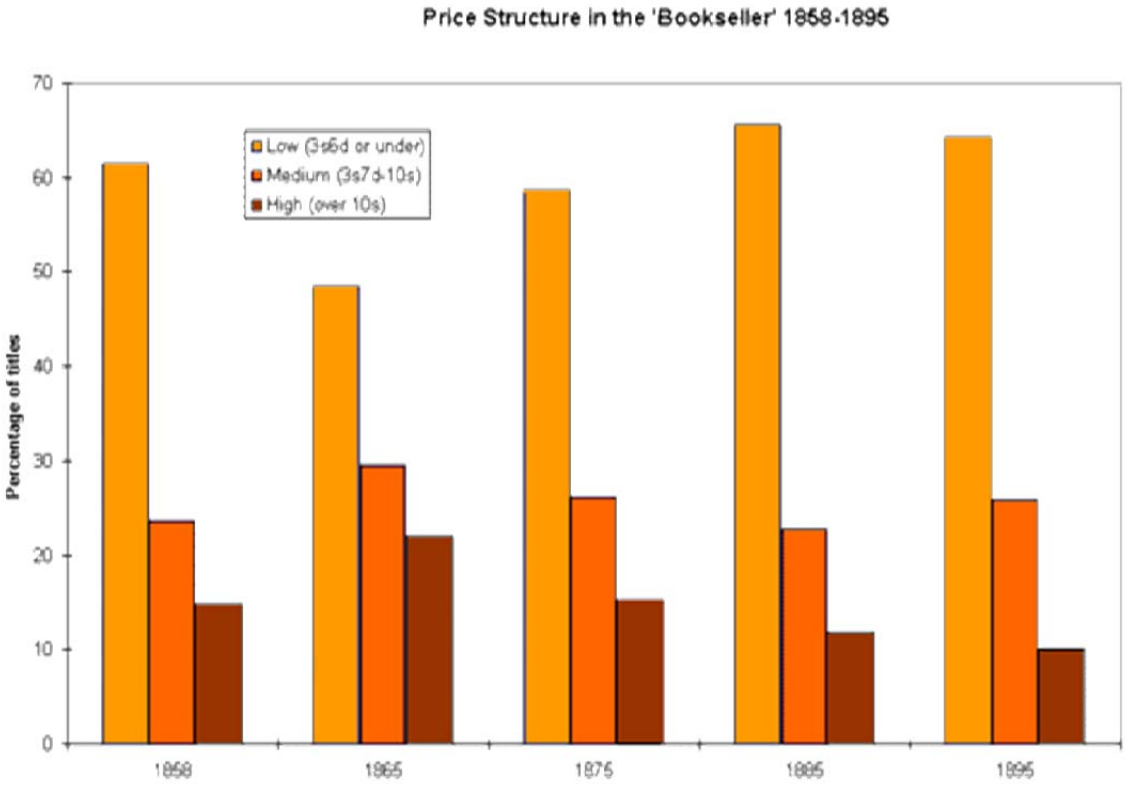


Fig. 2 – Aspects of the Victorian Book – Printing During the Nineteenth Century
(http://www.bl.uk/collections/early/victorian/pu_yellow.html)



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APPENDIX 4

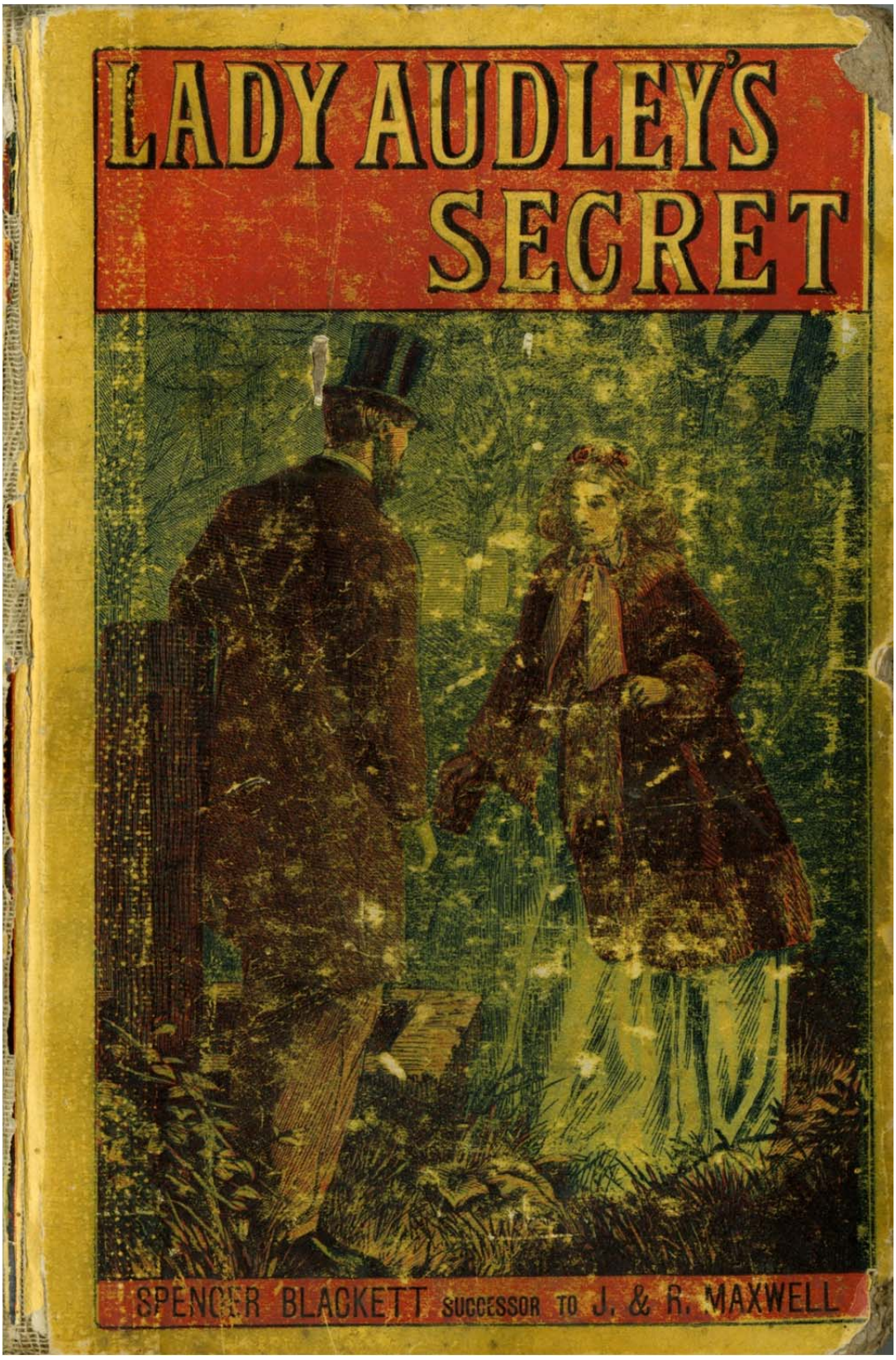

Fig. 4 Front cover of yellow back edition of *Lady Audley's Secret*
(Courtesy of the Monash University Library Rare Books Collection)

APPENDIX 4

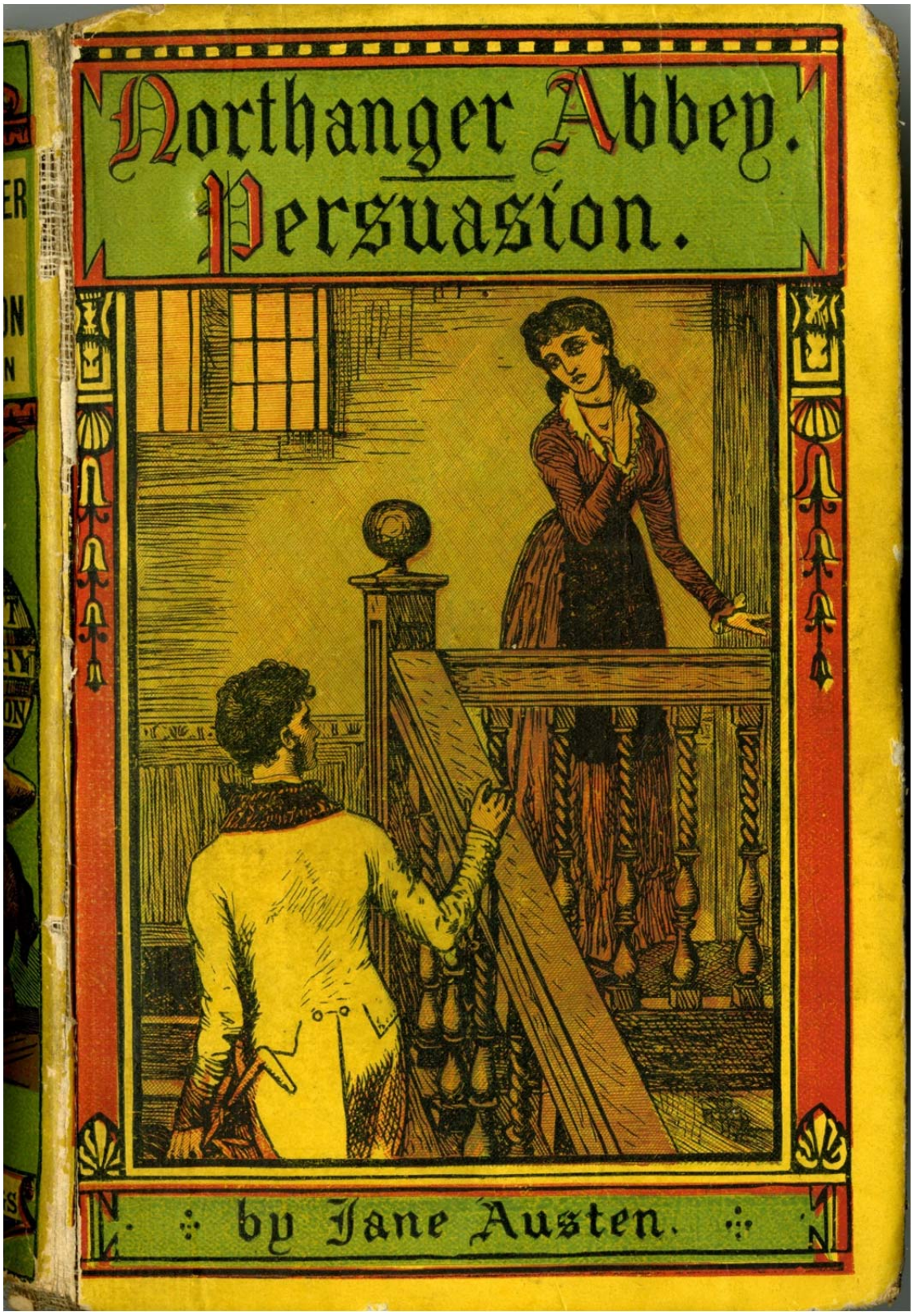

Fig. 5 Front cover of yellow back edition of *Northanger Abbey/Persuasion*
(Courtesy of the Monash University Library Rare Books Collection)

APPENDIX 4

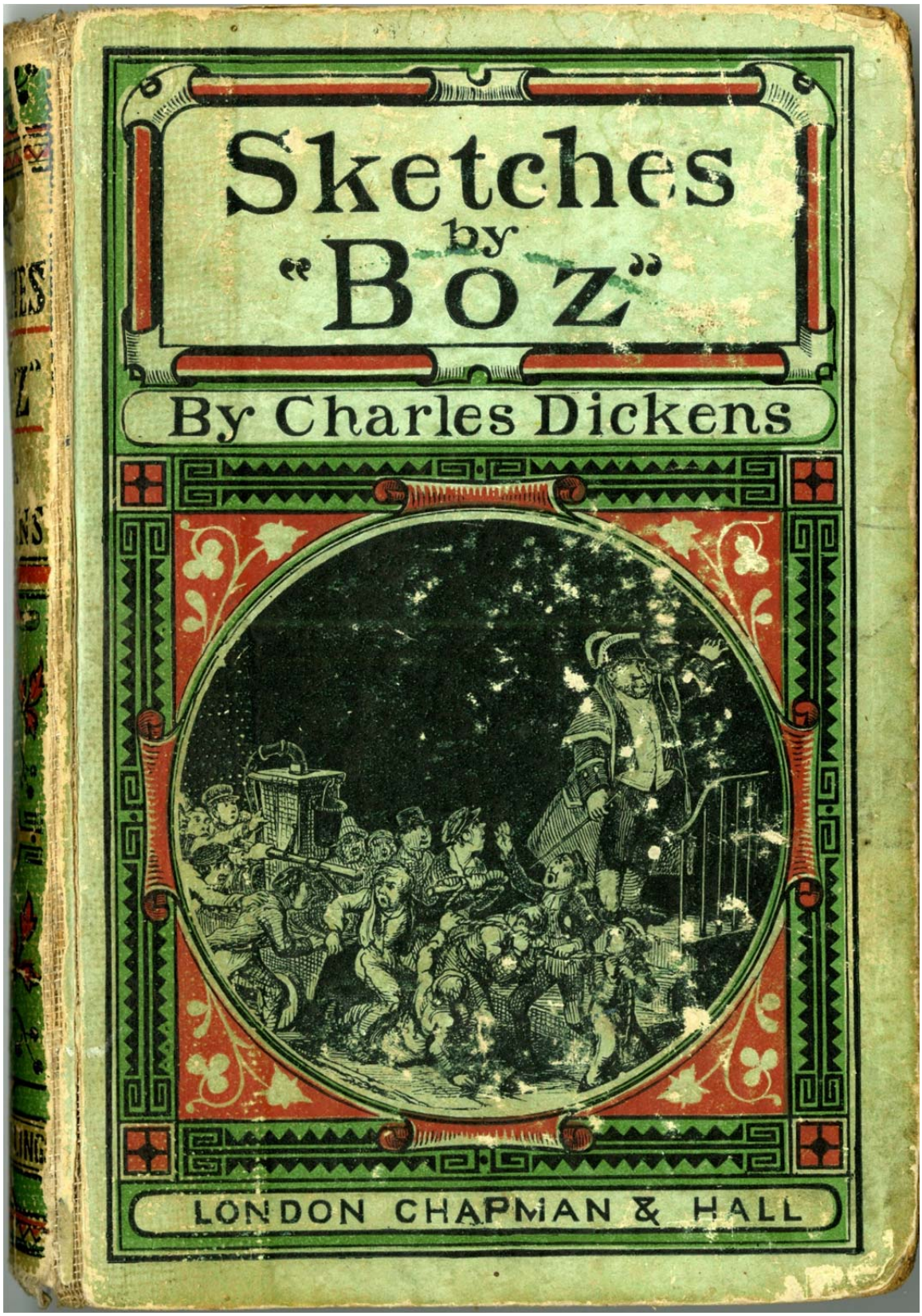

Fig. 6 Front cover of yellow back edition of *Sketches by Boz*
(Courtesy of the Monash University Library Rare Books Collection)

APPENDIX 4

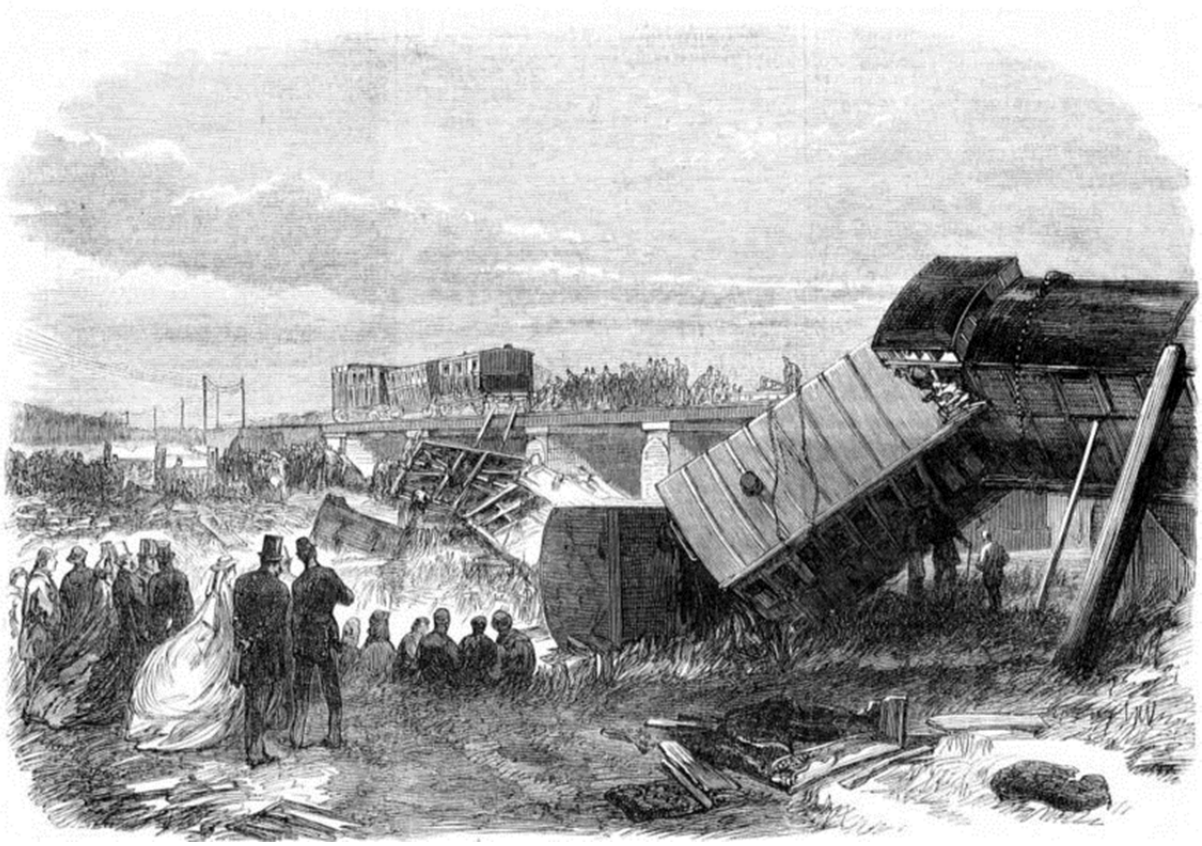

Fig. 7 – Staplehurst Train Crash 1865 – *Illustrated London News*

(Railways Archive, 'Accident at Staplehurst on 9th June 1865'
http://www.railwaysarchive. co.uk/eventimages.php?eventID=31&imageID=298
[accessed 16 September 2013)

THE RAILWAY MISSION - THE UP AND DOWN LINE

http://brunelspecialcollections.files.wordpress.com/2013/05/upanddownlines.jpg
(All images used with the permission of the Railway Mission, which published *Railway Signal* and still exists today)

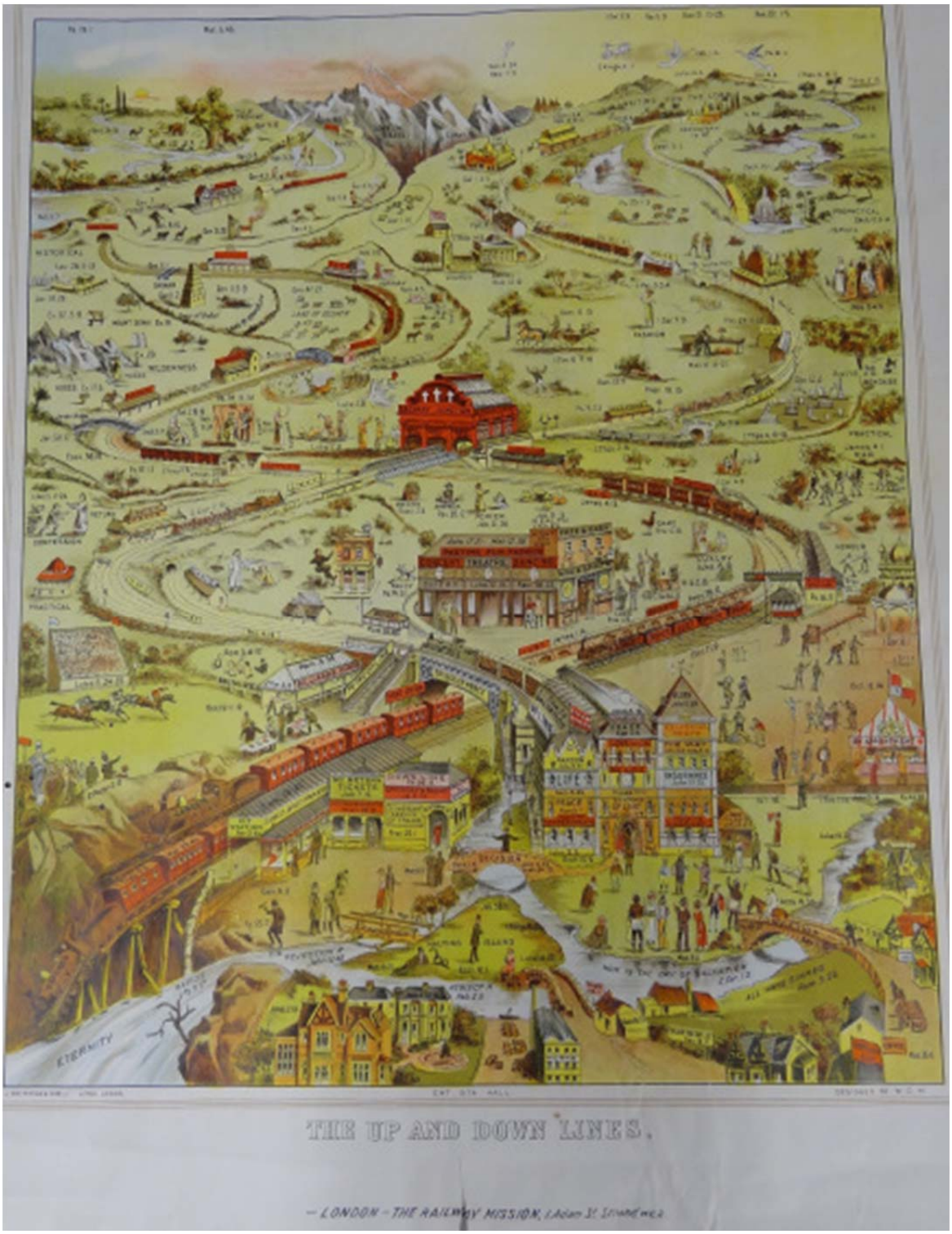

Fig. 8

APPENDIX 4

Fig. 9

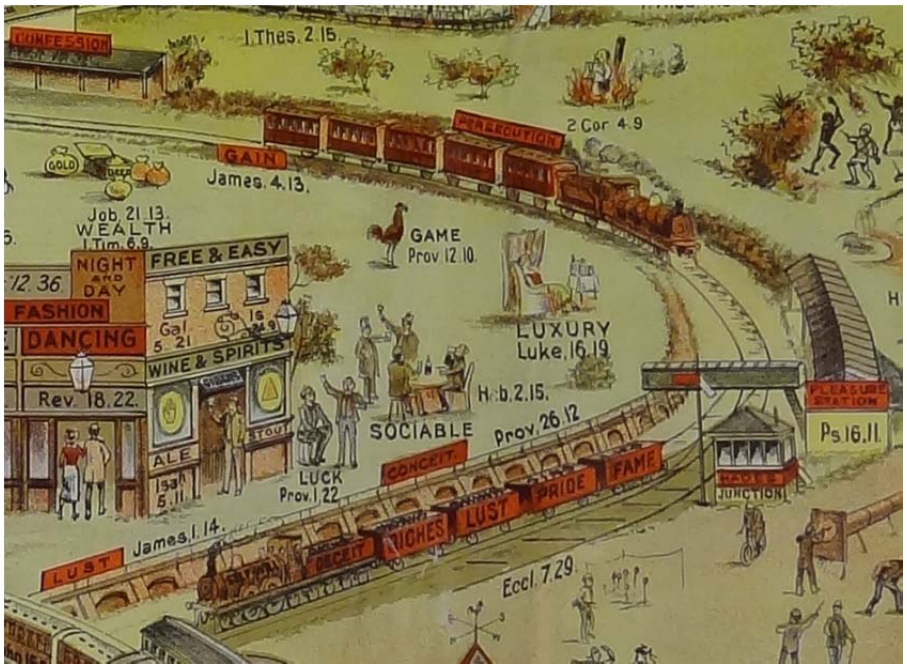

Fig. 10

APPENDIX 4

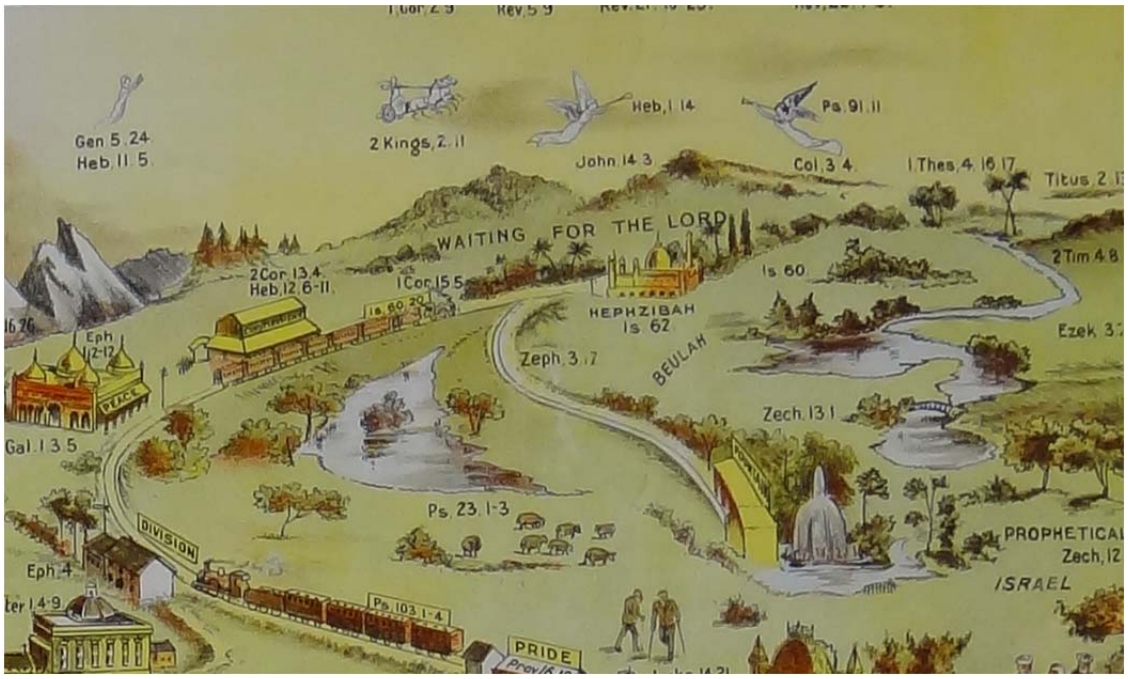

Fig. 11